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EDGE

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DREAMCAST
VIRTUA FIGHTER 3

SEGA'S WORLD-BEATING COIN-OP COMES HOME

SEGA RALLY 2

BLUE STINGER

BLACK AND WHITE

SOUTH PARK

BODY HARVEST

SILICON VALLEY

ABE'S EXODDUS

GRIM FANDANGO

DREAMCAST AND THE NET: THE FUTURE OF ONLINE GAMING?

A QUESTION OF CHARACTER: FROM PAC-MAN TO LARA

JAMMA SPECIAL: THE NEW WAVE OF COIN-OPS REVEALED

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The reception afforded Sega's much-anticipated Dreamcast at its mass unveiling during this year's Tokyo Game Show was one of marked contradictions.

On the one hand there was the usual bunch of sweaty western journos to whom even the briefest glimpse of *Sonic Adventure* would have been an ecstasy-inducing revelation.

The procession of senior delegates from Sega's competitors, meanwhile, were not nearly as animated – some quietly pointing out what they perceived to be graphical limitations in the Dreamcast demos on display, some mustering wry smiles as if they knew something others patently did not.

And then there was the busload of Japanese schoolchildren who, upon arrival, proceeded to stampede like animals down the Makuhari Messe's main hall in the direction of Sega's stand – only to ignore it as they attempted to reach the hottest PlayStation wares before their friends.

Edge stood back and watched.

In many respects this was a Tokyo Game Show just like so many that have gone before, despite many hardcore attendees expecting to see a new Sega. Such dreams were only partially fulfilled, as still more contradictions reared their heads – the appearance of a sparkling Dreamcast rendition of *Virtua Fighter 3tb*, for example, marred by footage of a shaky-looking *Sega Rally 2* conversion elsewhere.

Ultimately, Dreamcast's potential could not be judged on its performance at this one event. Certain questions will be answered on November 27, but **Edge** prefers to wait and witness the output of valuable, heavyweight thirdparty developers before passing judgement on Sega's great white hope.

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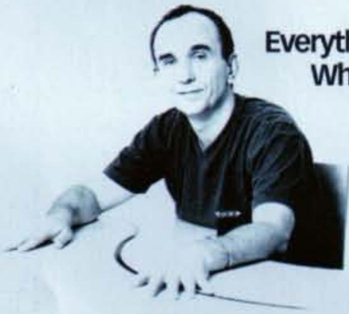
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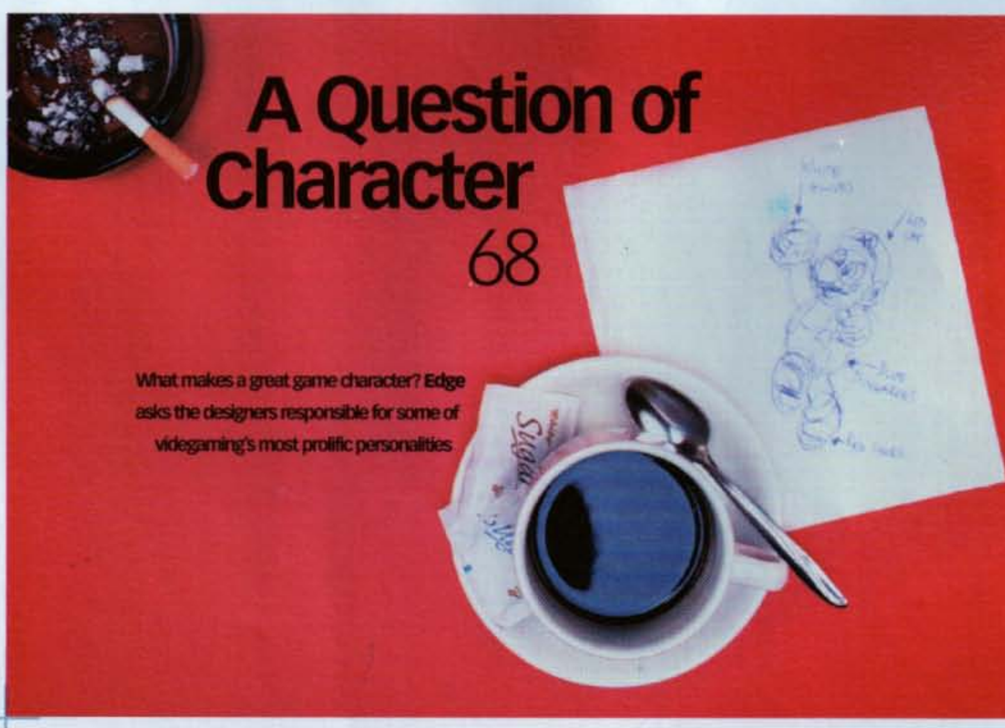
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PRESCREENS 13

Sonic leads the way as Edge showcases the latest titles from the Tokyo Game Show. Elsewhere, Psygnosis' *Lander* prepares for take off







SouthPark 39

Oh my god! Kyle, Stan, Cartman and Kenny arrive on the N64





BlueStinger 44

The Dreamcast adventure continues



118 an audience with...

Ian Livingstone

Cutting Edge

The latest news from the world of interactive entertainment

TOKYO GAME SHOW '98: ALL FLASH, NO DASH?

Dreamcast dominated the Tokyo Game Show, but lacked the software support it deserved







***Sonic Adventure* and *Godzilla Generations* demonstrated what Dreamcast could do at TGS. The three-day event received more than 15,000 visitors – the highest attendance ever**

For most of the western delegates who flocked to this year's Tokyo Game Show – held as usual at the gargantuan Makuhari Messe exhibition hall – the debut of Sega's Dreamcast console was undeniably the main event. Aside from the New Challenge Conference which took place several days earlier (see p8), this was the place to see the machine running the software that will spearhead its launch on the Japanese market on November 27, and gauge the fortunes of a company attempting to stage a comeback.

Dreamcasting aspersions

Perhaps as a reflection of Dreamcast's curiously low-tech branding, the system's presence far from dominated the show floor and was every bit a sign of a re-marketed, reconsidered Sega – a company that now likes to think before it shouts. The software line-up – essentially the same as the one that was trumpeted at NCC a few days before – was a curious mixture of high and low-tech that did as much to reveal the system's potential as raise questions about it.

Edge's quizzing of western and Japanese developers revealed mixed reactions – although many expressed surprise at the speed with which the company had executed the *Virtua Fighter 3* conversion. Most agreed it represented an admirably accurate translation, not to mention a far cry from the underprogrammed port of its arcade forefather that helped scupper the Saturn's launch.

As the system's flagship title, however, *Sonic Adventure* naturally garnered the most interest and had little difficulty establishing itself as the benchmark against which all other Dreamcast titles will be judged. Technically, it nixed some doubts about the hardware and its potential for rendering large, detailed environments – relatively (but not entirely) free of background pop-up. Nevertheless, this is a game with an enormous amount left to prove – if only because the restricted time available to actually play the game at the event left delegates (**Edge** included) somewhat bemused by how well its different stages, characters, and their respectively different play styles will gel



together. A glimpse of a potential innovation was, however, provided by its creator Yuji Naka – who revealed the title's aspirations as an Artificial Life sim in a bizarrely cute mating game featuring Sonic and his host of liberated chums playing mix and match, VMS-style. The absence of *Sonic Adventure* as a Dreamcast launch title could be a major blow to Sega.

There was disappointment to be found elsewhere within the Dreamcast zone, though. The prominent placing of an undernourished PC port of *Sega Rally 2* served only to emphasise its shortcomings. Elsewhere, titles such as *Godzilla Generations*, *Pen Pen Trilcelon*, and *Blue Stinger* all did their graphical bit, but essentially they represented little more than a rallying call for the imminent Japanese launch. A more serious software assault is expected to coincide with its western debut. Incidentally, **Edge** learned at the event that western developers will not receive essential







Naturally, all of the big Japanese players (including, from left, Namco, Konami and SquareSoft) put on glitzy presentations, although showstopping software was thin on the ground – at least on the 32/64bit consoles



With Dreamcast's Japanese launch now mere weeks away, public interest was high

libraries, enabling them to exploit the system's architecture, until February '99. This prompted several to voice concerns over their ability to create effective software before its western introduction later in 1999.

Small change

If any signpost were needed for the direction in which most of the games industry's devalued Yen is being channelled, the proliferation of Tamagotchi-derived console data units and new handheld games consoles provided it. Squaring up to Sega's innovative Dreamcast-compatible VMS unit was Sony's PocketStation plug-in (previously dubbed PDA), compatible with forthcoming titles such as *Street Fighter Zero 3*, *FFVIII* and *iQ Final*. The lack of a dedicated software push was masked by a gloriously Disneyesque stage show featuring excitable kids singing and dancing with Crash Bandicoot; the bankable marsupial appears to have carved himself out a niche as western gaming's ambassador to Japan. It was an entertaining if transparent diversion.

SNK's Pocket Neo-Geo appeared to a muted reception, although prototype models of a colour version revealed an exceptionally clean scrolling display – and, with it, the natural assumption that most Neo-Geo fans would rather hold out for its appearance than plump for its uninspiring monochrome counterpart now.

Bandai's Wonderswan was yet another new arrival on the handheld scene. Although it boasted support from a host of prolific Japanese developers, it looked destined to follow in the dubious footprints of Tiger's doomed Game.com system, which never escaped from the shadow of Nintendo's almighty Game Boy – still going strong, and soon to be available in colour after ten immensely fruitful years.

In sharp relief to the land of vapourware lay the PlayStation, occupying a vast territory that now encompasses an astonishing 54 per cent of the Japanese games market. In fact, the real backbone of the Tokyo Game Show was the slugging match between heavyweights such as Namco, Square, Konami and Capcom as they fought to expand their already lucrative slices of the PlayStation market. The emotionally charged *Final Fantasy VIII* led Square's assault, backed up with the polished fighter *Ehrgeiz*, the epic RPG sequel *Saga Frontier 2*, and more *Chocobo* spin-offs in the form of *Chocobo Dungeon 2* and *Chocobo Racing*.

Filling the monitor screens on Namco's incredible tiered arena, where *Tekken 3* had premiered only six months before, was *Ridge Racer Type 4* (without analogue control, strangely). Consciously adhering to its visceral, arcade-derived playability – and not *Gran Turismo*'s realism – the developer is playing safe with this latest effort in a series whose appeal in the west is in danger of running out of gas. Konami, meanwhile, continued to ensnare horror lovers with its eerily provocative *Silent Hill* – a title to watch.

Whither the N64?

Christmas may well belong to *Zelda* in the west, but in Japan the measly amount of software on offer from third parties underlined the N64's evaporation. A clumsy mix of turn-based combat, bland environments and underwhelming graphics deflected showgoers from Konami's action adventure *Hybrid Heaven*.

Castlevania 64 was playable enough (though the whip weapon is proving a problem for the designers) but simply looked sub-PlayStation quality in visual terms.

This year's Tokyo Game Show ultimately proved a mixed bag, with significant developments appearing in the most unlikely areas. Perhaps most crucially, though, it failed to deliver concrete proof that Sega's new format will have the legs to bring the company back on a level playing field with its bitter rivals.





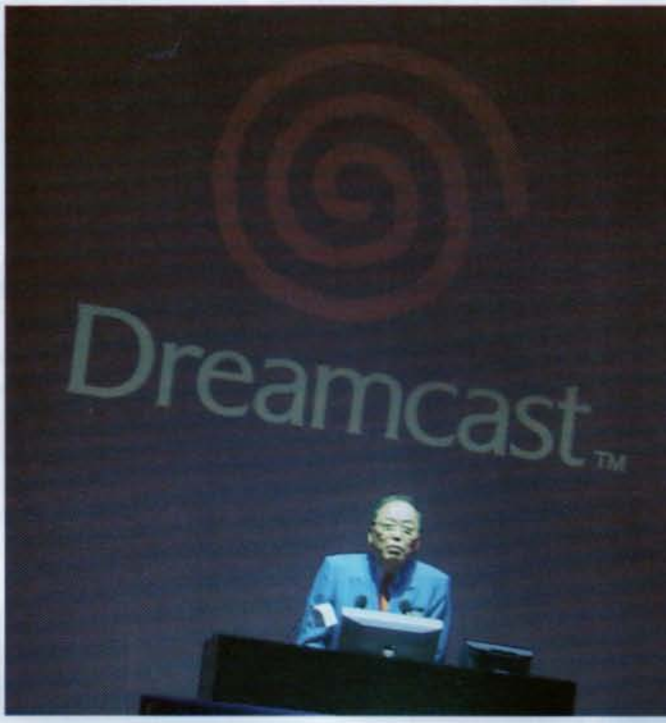
Handheld devices were big news: in addition to SNK's Neo Geo Pocket (left), Bandai's ludicrously monikered Wonderswan console (right) and Sony's PocketStation (see p10) made appearances

SEGA RISES TO DREAMCAST **CHALLENGE**

New Challenge Conference 2 outlines Dreamcast launch titles – and a couple of pleasant surprises

On the afternoon of October 6, Sega hosted its 'New Challenge Conference 2' to reveal the precise details of the Dreamcast console's launch. Now set to appear in Japanese stores on November 27, the console that could be Sega's last chance to succeed in the consumer market will retail at ¥29,800 (approx. £145).

While that figure may seem low to western eyes, it is double the Japanese price of both the N64 and PlayStation. However, Sega appears to have pulled out enough trump cards to ensure Dreamcast grabs the attention of gamers – at least in the short term.









Sega chairman Ogawa-san led the march into battle (main), closely followed by president Shoichiro Irimajiri. He appeared on-stage with Namco's president (top) to announce the company's support for Sega's new platform

Tekken 4 Dreamcast?

By far the most significant announcements at SNCC2 were the introduction of three key Japanese thirdparty developers. The shock as Capcom unveiled *Bio-Hazard Code Veronica* (aka *Resident Evil 3*) was palpable, and the game is undoubtably a coup for Sega – although whether it will be exclusive to Dreamcast isn't yet known. Featuring realtime backgrounds and astonishingly detailed characters, *Code Veronica* looks breathtaking.

Namco's president provided the second big surprise when he appeared on stage with Sega chief Shoichiro Irimajiri to underline Namco's support for Dreamcast. No specific titles were mentioned, though the words '*Tekken 4*' were on the lips of most attendees. (How Sony might react to such suggestions wasn't so apparent.) Another fighting title, *Power Stone* – created by *Street Fighter* producer Yoshiki Okamoto and set to be ported from the Naomi arcade system (see pages 126-128) – rounded off the thirdparty disclosures.

Sonic slippage

The conference also witnessed the official unveiling of Sega's launch line-up. Dreamcast kicks off with *Virtua Fighter 3tb* (see p22-23), *Sega Rally 2* (p29), *Godzilla Generations* (see **E**63), *Pen Pen Trilcelon* (see **E**64) and a curious adventure game entitled *July*. Sadly, the promising *Sonic Adventure* has now slipped to a December 17 release, although this would imply that Sega is serious about getting the game right. *Blue Stinger* (prescreened this issue and **E**64) is closer to completion, and set to hit shelves on December 3. All software is expected to retail in the region of ¥5,800 (approx. £28).

The online operation

On the hardware front, several previously unknown quantities were clarified. A 33.6Kbps modem will definitely feature in the Japanese Dreamcast, and some novel software – plus a ¥4,500 (£22) keyboard – were unveiled to exploit the console's networking capability. By way of an introduction to the internet, buyers of the machine will be given two applications: *Dream Flyer* and *Dream Passport*. The former is a curious postcard-making program, complete with a mountain of clipart, while the latter is a more useful email and connectivity package which allows the user to access Sega's new Dricas homepage. Online charges will be waived until the new year.

Aside from the requisite killer games (which Sega is striving to provide), the network capability of Dreamcast could prove to be a strong selling point. Japanese gamers are very receptive to offbeat concepts such as *Dream Flyer*, and the popularity of an email facility goes without saying. And while the console's launch titles are not overwhelmingly original, the added support of industry heavyweights such as Namco and Capcom suggests that the best is yet to come.







Capcom's revelation that *Bio-Hazard* was on its way to Dreamcast was only topped in effect by the magnificent footage of the game in action



Few consoles have been launched with such a proliferation of firstparty peripherals. The arcade stick is not the heavy-duty item it first appears to be, although the steering wheel is promising, and the joypad is sound enough

Dreamcast peripherals round-up

Visual Memory System

Featuring an LCD screen, Sega's VMS unit is usable as a display in the controller, or as a standalone miniature console. Two VMS units can be joined in order to exchange data.

Release: **November 27, 1998**
Price: **¥2,500 (£12)**
CPU: **8bit**
Memory: **128Kb**
Weight: **Approx. 45g**

Dreamcast Controller

Developed from the Saturn's *NiGHTS* analogue controller, the new joypad is light and comfortable. Featuring both analogue and digital controls, the pad has drawn criticism from some developers for its lack of buttons (four as opposed to Sega's traditional six).

Release: **November 27, 1998**
Price: **¥2,500 (£12)**

Dreamcast Keyboard

Initially, Sega's announcement that a keyboard would be available came as something of a surprise. Used to exploit the machine's Internet capabilities, though, the keyboard makes perfect sense.

Release: **November 27, 1998**
Price: **¥4,500 (£22)**

Racing Controller

Compatible with *Sega Rally 2* and all subsequent driving titles, this bears a marked similarity to the old Saturn's unit. Expect a slew of thirdparty variants.

Release: **November 27, 1998**
Price: **¥5,800 (£28)**

VGA Box (provisional name)

Betraying Dreamcast's PC-based graphics card and operating system, this adaptor will enable the console to be connected to a VGA monitor and display images at 640x480.

Release: **1999**
Price: **TBC**

Puru Puru Pack (provisional name)

The second slot on Dreamcast's controller can be occupied either by a second VMS unit, or by this, Sega's riposte to the N64's Rumble Pak. Expect a name change for the west.

Release: **1999**
Price: **TBC**

Arcade Stick

Supposedly manufactured to the same specification as the joysticks used in Sega's arcade cabinets, Dreamcast's own six-button Arcade Stick is not quite the paragon of structural integrity you might expect.

Release: **November 27, 1998**
Price: **¥5,800 (£28)**

Microphone Device (provisional name)

Voice-recognition apparatus – **Edge** isn't holding its breath for this in the west.

Release: **TBC**
Price: **TBC**

Fishing Controller (provisional name)

Just in case you want to play *Get Bass*.

Release: **February 1999**
Price: **TBC**

Other connectors:

S-Video
Composite
RF-adaptor

Modem living

Sega is to supply a number of connectivity tools and toys free with the Dreamcast console. First of these is *Dream Passport*, which operates as a basic email and browser application, allowing users to mail each other, and connect to the specific Dricas Website that Sega is launching on November 20.

The second package is *Dream Flyer*, a curious postcard and stamp creator, which will presumably appeal to the same facet of Japanese mentality that Nintendo's Game Boy Camera has successfully tapped into.





Other Dreamcast software titles announced at SNCC2 included (from left) beat 'em up *Power Stone*, *Grandia 2*, *Giant Japanese Pro Wrestling*, and a new version of *Virtual-On*, set to be a key network-compatible title in Japan

Confirmed Dreamcast software (Japan)

November 27
Godzilla Generations
Sega Rally 2
Virtua Fighter 3tb
Pen Pen Trilcelon

December 3
Blue Stinger

December 10
Geist Force

December 17
Sonic Adventure

December 23
Incoming
Evolution
Seventh Cross
Monaco Grand Prix

First quarter 1999
Sengoku Turb
Climax Landers
Aero Dancing
Get Bass
White Illumination
Cool Boarders
Mahjong
Puyo Puyo
Great Buggy
Cho-Hamaru Golf

Nintendo warms up

In an unexpected move, Nintendo has unveiled yet another aspect of its Christmas 1998 strategy. Every N64 sold from October 16 is to be bundled with either the 1998 Game of the Year (*GoldenEye*), or 1997's equivalent (*Super Mario 64*), at no extra charge. At £100, the new pack represents a substantial £50 saving. The announcement followed part of Nintendo's recent aggressive campaign which saw most of its titles – including forthcoming triple-A products such as *The Legend of Zelda: Ocarina of Time*, and *Turok 2* – given a new £40 price tag.

In a related issue, Nintendo of America is due to release a limited edition N64 bundle which in addition to the usual control deck and controller, also features a translucent-purple joypad. The $130 pack is available from November 9 to December 31.

PLAYSTATION 2 CONTINUES TO ELUDE

New hardware rumours implode under wave of mass hysteria

The whirlwind of speculation regarding the PlayStation's successor has blown itself out.

Instead of delivering a cracking blow to Dreamcast with the announcement of a world-beating console at the Tokyo Game Show, Sony chose instead to let Sega have its day.

Sony's meagre recompense was PocketStation (see below), a souped-up memory card decidedly lacking in the DVD department.

The PlayStation 2/DVD rumour continues to circulate, however, and appears the most definite to become a reality, although a reliable **Edge** source seemed less convinced, claiming that, "If I was a betting man, I wouldn't know where to put my money." Certainly, if Sony could bring PlayStation's successor to market complete with a DVD drive capable of playing movies on the format, the machine's appeal would be gargantuan. As yet, though, no manufacturer has produced a player that retails below $399 (£249), so to combine that hardware with a dedicated gaming chipset is no small challenge.

At the time of going to press, none of the developers contacted by **Edge** had PlayStation 2 dev kits, which points to a launch date on the far side of 2000. That situation may be different in Japan, but the Internet is simply too active nowadays for Sony to prevent some form of information leaking out. **Edge** remains watchful as to further developments.

What does seem rather more likely to be announced soon, particularly in light of Nintendo's recent package deals (see side story), is a drop in the PlayStation's retail price. Current talk is of a sharp slash in the UK from the current £100 to a Mega Drive-esque £70, which would land the ball squarely in Nintendo's court. This Christmas is going to be blood red, not white, once the fighting is over…

SMALL IN JAPAN – BUT WHO WILL CARE?

New Challenge Conference 2 delivers new wave of peripherals for the pocket

One of the Tokyo Game Show's large-scale announcements was Sony's PocketStation, a PlayStation memory card equipped, as is Dreamcast's Visual Memory System (VMS), with a tiny LCD. Unlike Sega, Sony has gifted its unit with an infrared link capability, a feature currently wowing owners of Nokia mobile phones with nothing better to do than beam things to each other (see p136).

Both Sega and Sony are making much of the new miniature handheld units, but as yet only the former company has come up with a good use for its 'Personal Digital Assistant'.

The Dreamcast VMS can be used to transfer data between Sega's home machine and its related Naomi coin-op board, as well as acting as a standard memory card for the console.

Where PocketStation really seems to fail is that its LCD is only 32 pixels square, compared to the Game Boy Color's 256x256 resolution and the VMS' 48x32. Those who have experienced the dubious pleasure of playing with Sega's *Godzilla* VMS will doubtless ponder what can really be achieved on an even smaller screen. The real potential of both Sega and Sony's miniature white elephants is to expand on the capabilities of their home consoles. Any grander ambitions, such as Sony's intention to sell downloadable PocketStation games on PlayStation CD-ROMs, seems like little more than pandering to a passing trend in the Japanese market. An N64-to-Game Boy Color link, however, would be something else entirely…



Sony's PocketStation in all its memory card-like glory



Sega's VMS may prove more useful than Sony's PDA, if only by virtue of its compatibility with the Naomi coin-op system

Psygnosis cuts

Psygnosis has closed its Manchester office and scrapped several UK-based developments with the unfortunate loss of around 75 positions, following an extensive review process. *Lander*, the only Manchester-based project to survive the revision, has two more months of development left. The company is said to be refocusing its efforts primarily towards PlayStation development and investing in its core game brands. However, it also confirmed its commitment to continue to develop titles on PC and N64, as well as considering the viability of other platforms such as Dreamcast. As such, *Wipeout 64* is the only version of the franchise that's due – for this year, at least.

When contacted, Psygnosis stated that this marked the majority of the lengthy review processes which have seen the company's employee numbers drop from 800-plus to somewhere around the current 600 mark.

BLOODBATH IN THE THIRD DIMENSION

Who will survive the upcoming shakedown in the cut-throat PC 3D graphics arena?

The PC 3D graphics scene is becoming increasingly stormy as competition between chip developers heats up, and consumers grow increasingly confused about the choices laid before them. In fact, many now expect a bloodbath in the industry, which is becoming a victim of its own success.

Anyone thinking of buying a new high-performance 3D card faces a proliferation of options. First, there's the range of standard-setting 3Dfx Voodoo2-based cards which work alongside normal 2D cards as dedicated 3D accelerators, then there's the new generation of chips that accelerate 2D and 3D graphics, support DirectX 6, and fit the new AGP (advanced graphics port) slots found in new PCs. The key players here are S3's Savage 3D, the 3Dfx Banshee chipset and NVidia's twin texel Riva TNT boards. Finally there are all the yet-to-be-released solutions including Permedia 3 from 3D Labs, the delayed second generation PowerVR chipset (as used in Sega's Dreamcast), Voodoo3 from 3Dfx, and the Savage 3D 2 which is expected to be announced at Comdex in Las Vegas this month.

The confusion is compounded by the fact that all the big graphics card sellers are hedging their bets. Diamond Multimedia already has boards based on Voodoo2, Banshee, TNT and Savage 3D on the market. German manufacturer Hercules boasts all the chips in its range, too, as does STB. Creative Labs neglects only the Savage 3D from its list, though it hasn't ruled out a card based on that chipset. For a consumer to choose which chipset to buy, and from which vendor – with all their competing bundles – can't be easy.

The developers of the chips, therefore, find they aren't being championed in the marketplace and therefore shoulder all the risk. "We're kind of lucky in the position that we have," says **Eoin Leyden**, brand manager for graphics at Creative Labs. "We sit back and literally poll all the chip vendors. We don't actually incur the sort of risk that they're under. If the chip isn't very well received, they will be in difficulties."

For this reason each chip maker has been trying to generate as much hype around their products as possible, often exaggerating performance results. At the end of the day, some are expected to go down. "The costs of development and marketing these chips in the new 3D game-centric arena are skyrocketing," comments S3's **Paul Ayscough**. "I just ask if there will be enough business for all the new entrants, and some of the old ones, to make money and survive."

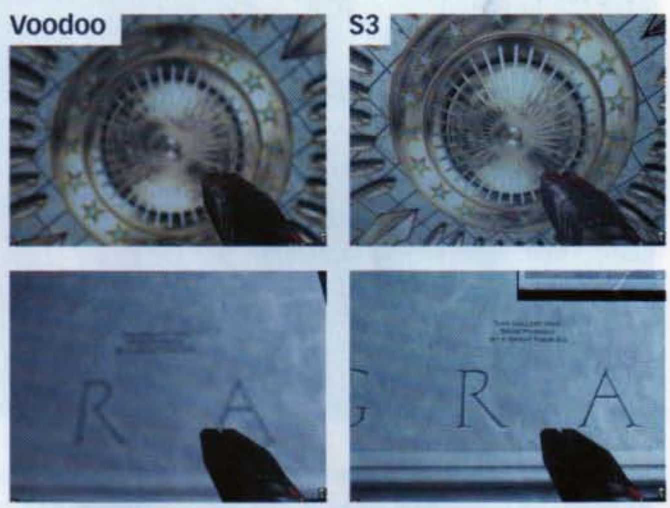
Creative's Eoin Leyden expects the shakedown to leave us with five or six major players from the 22 existing chip developers. "3Dfx will definitely be there. NVidia will be there. After that, it starts getting difficult. Everyone's only as good as their last chip and the rate of change is so quick that the hottest chip today is literally history in six months' time."

Rumours are already circulating about who will go under. Even the position of 3Dfx has been questioned, with speculation that Diamond Multimedia was to buy the Silicon Valley giant. Diamond, however, has dismissed this.

Texture compression tug of war

The viciousness of the chip manufacturers' survival struggle was recently highlighted by Canadian company Matrox's attack on S3's texture compression technology, which Microsoft has built into DirectX 6. Matrox cites quality issues with the compression process. Currently S3's own Savage 3D chipset is the only one which actually supports texture compression, which works against the company. However, by squashing textures down to one sixth of their memory requirement, it's a technology capable of immediately improving the graphical quality of games. S3 has licensed the *Unreal* engine from Epic Megagames and to prove the point has produced an *Unreal* level that boasts 200Mb worth of textures. (A current level would normally contain around 25-30Mb).

This compression technique will mean that game developers will be able to produce environments that look four to eight times sharper for the same memory requirements. The burden now will be on the shoulders of game artists who will be forced to produce higher resolution background textures. *Quake III: Arena*, *Wargasm* and *Kanaan* are some of the upcoming titles that will exploit texture compression. With RAM prices set to creep up again thanks to the Asian economic crisis, S3 sees texture compression as a good way of putting huge textures into games without bumping up hardware costs. Game settings containing 240Mb of textures can easily get by on a PC with a standard 64Mb RAM plus 8Mb on the graphics card. At the moment, though, that card still has to be a Savage 3D.



The ceiling decoration top left is created without texture compression. On the top right image, the system provides far higher texture resolutions. Text on game textures currently looks ropey (left) but with compression and thus higher texture resolutions, it can look really sharp

European Dreams

Edge has learned a little more about the 1.5-party games currently being created for Dreamcast in Europe, under close guidance from Sega. Although screens are unavailable, and gameplay details sketchy, what little information there is **Edge** is happy to impart...

Red Lemon's firstperson shoot 'em up has gained a name, *Project: TTB*. According to company director Andrew Campbell, the title contains a unique strategy element. And Dreamcast is allowing the introduction of multiple AI-driven enemies to harass the player.

Meanwhile, Bizarre Creations has confirmed a second project to follow its driving game, *Metropolis*. This new game, dubbed *Furballs*, is described as a 'cartoon action shooter', and features six original, playable 'cute animals', each with distinct weapons and skills. While a release date has yet to be set, Christmas '99 or possibly into 2000 seems likely.

Finally, No Cliché has revealed the (provisional) names and themes of its two titles. The first is *Gutherman*, a driving game in which the aim is to 'drive vehicles through several breathtaking missions'. Its sister title sounds more intriguing; dubbed *Agartha*, the project is depicted as a horror adventure and is claimed to offer an innovative control system. No Cliché founder Frederick Reynard was involved with the *Alone in the Dark* series, which is widely quoted as an inspiration for Capcom's *Resident Evil* games. A return to roots?

PRESCREEN

EDGE PREMIERES INTERACTIVE ENTERTAINMENT'S FRESHEST FACES

There's no smoke without fire

New console technology is undeniably exciting, but there's more to come

It's a really great time to be a videogamer. Periods that could lay claim to being gaming's golden age have come and gone – few could match the sheer buzz that is running through the scene right now. Cynical historians would argue that the shift to a new generation of hardware is always marked by an electric sense of anticipation. Doubtless the imminent arrival of Dreamcast and the scattershot rumours regarding the next consoles from Sony and Nintendo have fanned the flames of interest, but on the cutting edge of gaming there's a lot more to see.

This issue's major prescreen, *Black and White*, is the latest game to seep from the bubbling mind of Peter Molyneux. At first, the new technologies that Molyneux's development team, Lionhead (and others such as Argonaut and Reflections), are adding to their titles may seem interminably dull. Aspects such as physics, tessellation, morphing, procedural textures and artificial intelligence have the ominous ring of a school timetable, but are in fact destined to set videogames alight once more.

Now that the quest for reasonable polygon counts has almost run its course, developers are realising that pumping out more triangles isn't going to make their games any better. It's no good creating a 5,000- or 10,000-polygon character model if it then animates like a wooden doll. That's where the aforementioned technologies come into play, bringing new levels of realism to the videogame arena. A fine example is the character motion in *Black and White*: no longer is movement limited to a series of preprogrammed paths.

The new generation of PC processors (and Dreamcast's nifty little RISC unit, too) have enough horsepower to calculate fresh animations, guiding outstretched limbs to the exact point required. 'Heavy' objects are actually heavy, towers can tumble, hills can be laboured up and boulders can realistically roll. The implications of such fresh additions to developers' repertoires will be far reaching, with multiple applications in countless titles. From platform games to racing sims, the realms of interactive entertainment are about to be redefined beyond recognition.

However, that's not to say there isn't value to be found in traditional animation techniques. Physics may add realism, but realism doesn't necessarily add depth to a title. And that, as every switched-on gamer knows, is what it's all about. Just ask the bods at NCL.



Only a fool could fail to understand the implications that physics-based animation (as shown in this experimental example from Argonaut) holds for game design. Especially 'Swingball' titles

Edge's most wanted

Desperately desirable developments



Sonic Adventure

(DC) Sega

After being treated to demo presentations in London, the chance to play Sonic's latest outing at TGS wasn't wasted. Beautifully crafted stuff.



Bio-Hazard Code Veronica

(DC) Capcom

The world is going to go bonkers for a new version of Capcom's horrific masterpiece. If anything can make the Dreamcast a success, this may be it.



Black and White

(PC) Lionhead

Peter Molyneux's recently gathered clan of creatives are working the PC's Next Big Thing. A Dreamcast conversion shouldn't be discounted, either...



South Park

(N64) Iguana US

Edge can only applaud Iguana's sheer courage in bringing America's most outrageous cartoon to the N64. Sample-spattered deathmatches win out.

Index

PRESCREEN ALPHAS

SEGA'S SHINING SAVIOUR LEADS THE WAY

SONIC ADVENTURE

FORMAT: **DREAMCAST** DEVELOPER: **SONIC TEAM**













Looking sharper and sexier each time new shots are released, *Sonic Adventure* is now destined for a slightly-later-than-planned appearance. However, the new December 17 release date may mean that Sega's Christmas will be taking place a little earlier than usual. Certainly, the fresh images above – showing the blue wonder flying a biplane – are amazing. Hopefully, Yuji Naka and his Sonic Team will pull together all the disparate elements of *Adventure* and deliver Dreamcast's first true killer app.

EVOLUTION

FORMAT: **DREAMCAST** DEVELOPER: **SEGA-STING**













The first of Dreamcast's new RPGs is the responsibility of Sega-Sting, which has little experience with the genre. However, the game has some neat touches, including several events such as a tank (shown above), which can be grenaded through its open hatch. *Evolution* follows the adventures of 16-year-old Mag Launcher as he attempts to trace his missing parents. Locations include those pesky 'mysterious ruins' that so often hinder an honest quest...

LET'S MAKE A SOCCER TEAM!

FORMAT: **DREAMCAST** DEVELOPER: **SEGA**









It's a statement of the obvious, but football games are perennially popular with the massmarket. So one as good-looking as this is bound to do wonders for Dreamcast's image, and hopefully it will play well, too.

LET'S MAKE A BASEBALL TEAM!

Beautifully bizarre, dramatically different and appealingly out there, Sega's *Let's Make a Baseball Team!* is partnered by a less eye-searing football version (see previous page). Players must build up a team to battle to the top of the baseball leagues. This title's real strength seems to lie in its fantastic graphical style. It makes for a refreshing change from the ranks of 'serious' American sports simulations.





CHO HAMARU GOLF

Identical in concept to Namco's *Everybody's Golf, Cho Hamaru Golf* is a populist, cartoon simulation of the sport most favoured by those of a stylistically challenged nature. The emphasis is on making golf for Dreamcast the accessible, interesting game it so clearly is in reality. **Edge** is holding on for the unbridled thrills of *Get Bass*...





LANDERS

FORMAT: **DREAMCAST** DEVELOPER: **CLIMAX**

Not to be confused with Psygnosis' similarly monikered *Lander* (see p24), Climax's second Dreamcast offering is rather different to the explosion-fest that is *Blue Stinger* (p44). *Landers* is a promising RPG title bound to delight fans of the genre with its colourful visuals and detailed heroes. Climax's back catalogue would suggest significant action leanings.











GEIST

FORMAT: **DREAMCAST** DEVELOPER: **SEGA**

Termed 'a cinematic shooting game', *Geist* looks visually stunning and is due to hit Japanese stores in December. Several camera angles are offered, along with a variety of homing missile and laser-based weaponry to help your progress from one action sequence to the next. Sadly, a playable version was not made available at the Tokyo Game Show.











TOTAL ANNIHILATION: KINGDOMS

FORMAT: **PC** DEVELOPER: **CAVEDOG**











Few would dispute that the original *Total Annihilation* (nine out of ten, **E**52) represented a significant milestone in the development of strategy gaming. Whether *Kingdoms*, *TA*'s swords & sorcery-inspired follow-up, will deliver such a quantum leap is doubtful, but **Edge** has high hopes for the title nonetheless.

TRESPASSER

FORMAT: **PC** DEVELOPER: **DREAMWORKS**

Finally nearing release, this could represent something of a revolution for firstperson games. Boasting an astoundingly realistic physics engine, the emphasis is very much on authenticity (except perhaps for the protagonist's rather silly arm), immersing you within a truly believable environment. Think of it as taking part in a 'Jurassic Park'-style movie.











FALLOUT 2

The original *Fallout* on the PC may not have made an enormous impact in the UK, but Interplay's post-apocalyptic RPG kicked up a storm in the US and certain European territories (indeed, it picked up a gong at the recent ECTS awards). The sequel allows players to drive a '50s-Chevy, and includes improved combat AI, customisable weapons, plus the opportunity to fall in love and even get married. How very lovely. Hmm.





DELTA FORCE

Looking remarkably like a better developed version of *Spec Ops* (seven out of ten, **E**59), NovaLogic's PC title *Delta Force* is described as an 'innovative third and firstperson ground-based action simulation game'. Well that's that sorted out, then. The actual gameplay revolves around the exploits of a top secret army unit, which must be used in the completion of over 40 missions.





BUJI

All reports indicate that this is the long-awaited PlayStation conversion of Konami's understated coin-op, *Fighting Wu-Shu*. In arcade form, the game was a commendable take on the *Virtua Fighter* model, even down to being played with kick, punch and defend buttons. Known in its native Japan as *Buji*, this PlayStation translation of the game should make for a worthy diversion for those tiring of Namco's popular *Tekken* series.





R4 – RIDGE RACER TYPE 4

FORMAT: **PLAYSTATION** DEVELOPER: **NAMCO**













Namco's arcade-based racing experience is shaping up impressively and was one of the highlights of the recent Tokyo Game Show. In addition to the features revealed last issue, a link-up option is also promised, with support for up to four players. Furthermore, Namco will be releasing its JogCon force-feedback controller specifically to coincide with the game.

DEEP BLUE

FORMAT: **PLAYSTATION** DEVELOPER: **KONAMI**











Not the most action-packed of genres, but this diving title makes a refreshing alternative to shooting aliens or driving fast cars. As an aspiring diver, you must search the ocean bed for valuable items with which to purchase new equipment. Only then can you seek out the lost treasure of the sunken Gigantic Matilda.

ZILL O'LL

Developed in Japan by Koei, PlayStation title *Zill O'll* is directly related to the *Wizardry* series. Although *Zill* is essentially an arcade adventure, you're able to customise your character's personality before the game begins. Then, when battles are won, players are given 'soul points' to allocate to different attributes. Out in Japan this winter.





WWII FIGHTERS

FORMAT: **PC** DEVELOPER: **ELECTRONIC ARTS**

The latest development to emerge from Jane's Combat Simulations titles, *WWII Fighters* replaces the series' usual polygonal recreation of hi-tech military air-based technology with 50-year-old equipment. As ever, the aircraft display great attention to detail including intricate realtime damage and empty shells being disposed by wing-mounted guns.









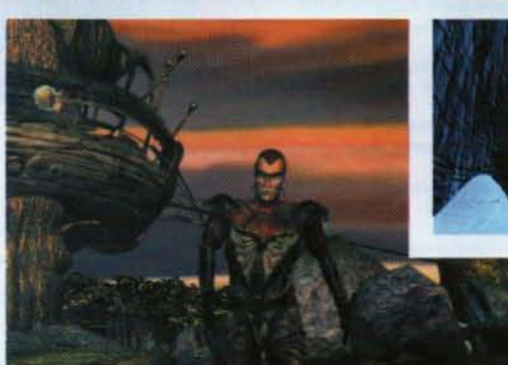


RING

FORMAT: **PC** DEVELOPER: **CRYO**









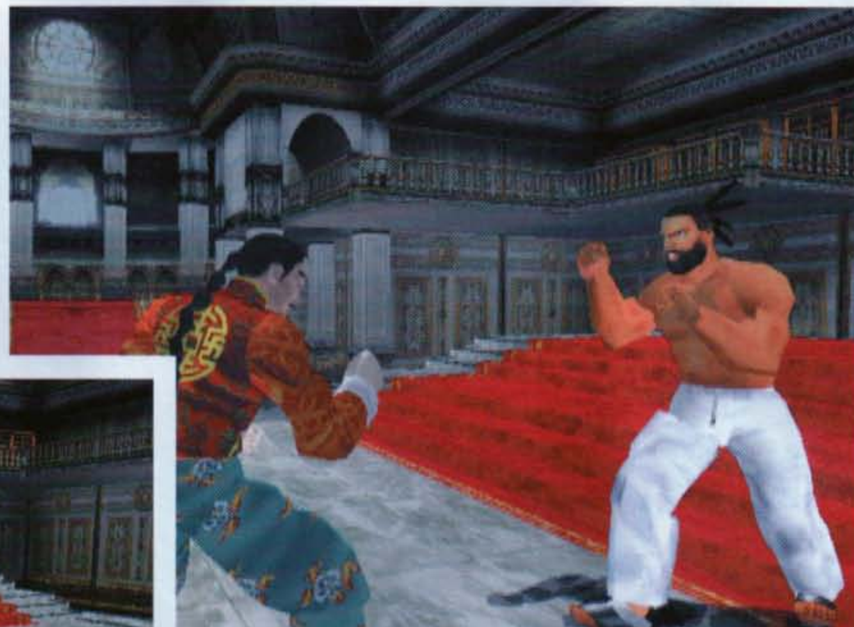


Although not the sort of title you'd normally expect to see in **Edge**'s preview section, Cryo's latest FMV-laden adventure is one of its most ambitious and could be one of its best to date. You control four characters within six vast universes (visualised by famed illustrator Druillet) with a plot based around Wagner's epic 'The Ring of the Nibelungen' opera.

VIRTUA FIGHTER 3TB

In the arcades *Virtua Fighter* and *Tekken* have been in the third throes of battle for some time. Now the final confrontation is looming for home users, too





While impressive, these shots come from an earlier version of *VF3tb* than the Tokyo Game Show demo. More representative shots will appear next month



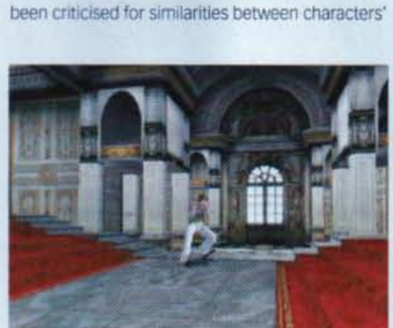
The introduction of multi-layered arenas was one of *Virtua Fighter 3*'s most notable aspects. Dreamcast *VF3tb* replicates the feature perfectly

Despite Sega Europe's protestations about intending to deliver Dreamcast to these shores with a line-up of original games, the real question on every gamer's mind was whether the console could accurately reproduce the AM divisions' coin-ops. Shown both at the Sega New Challenge Conference 2 and subsequently at the Tokyo Game Show (see News), Dreamcast *Virtua Fighter 3tb* seems to indicate that the console can handle certain Model 3 experiences with startling accuracy. Judging by the response AM2's famous fighting franchise received at the TGS, *Virtua Fighter 3tb* is the title that will be selling Sega's console come the November 27 launch.

The game's '*tb*' tag stands for *Team Battle*, as featured on the original special edition arcade cabinet of the same name. Differences between *tb* and the standard *VF3* are fairly minimal in terms of technology, with both coin-ops utilising the original Model 3, rather than an enhanced iteration. As in the *King of Fighters* games, *VF3tb* enables you to preselect a team of protagonists to use in successive rounds.

The full character line-up includes Akira Yuki, Sarah Bryant, Jacky Bryant, Lion Rafale, Pai Chan, Lau Chan, Wolf Hawkfield, Jeffry McWild, Kage-Maru, Shun-Di, Aoi Umenokoji, Taka-Arashi and the metallic androgyne Dural. Of these, Akira, Jacky, Jeffry, Lion and Kage were playable at TGS.

While the selection of combatants has remained fairly stable since *VF*'s inception, the number of available attacks for each has grown exponentially. And while the *Tekken* games have been criticised for similarities between characters'



***VF3tb* offers more viewpoints than *VF3* – all will be present in the DC conversion**

Format: **Dreamcast**
Publisher: **Sega**
Developer: **AM2**
Release: **November (Japan)**
Origin: **Japan**



In terms of arcade accuracy, the most common criticism levelled at *VF3tb* at the TGS concerned textures. A slight lack of detail should be rectified before release







Unlike PlayStation *Tekken 3*, Dreamcast *VF3tb* will not have to make major compromises with its backgrounds – they'll be full 3D models

fighting styles, *Virtua Fighter*'s have always been significantly diverse. Fighting styles range from delicate (Lion, Pai) to downright dirty (Kage, Wolf).

Sadly, the extended loading times required to fill the console's 16Mb RAM were all too noticeable during play on the TGS Dreamcast units, although it's believed that final optimisations have yet to be completed.

Those long periods of CD access are, however, gathering some rather impressive scenery from the 1Gb disc. Thirteen detailed and colourful settings are offered in the game, although Sega has been slow to release screens from every location. Also currently undisclosed are the extra options that the home version will offer (although gamers shouldn't expect too much, given the brief time frame in which the title has had to be converted to Dreamcast).

The game's striking graphical similarity to its coin-op parent has already impressed excited attendees of the Tokyo Game Show, where it was confirmed that a stable 60 frames per second screen refresh has been achieved by the AM2 team – matching the coin-op. But beyond differences in hardware platforms, the real battle is going to ultimately come down to gameplay. In the search for the best coin-op beat 'em up, hardcore fighting game fans have long been split between *Tekken 3* and *Virtua Fighter 3tb*. However, in the environment of the home, the decision will undoubtedly be any easier one to make come November 27.

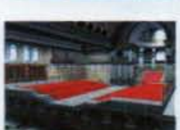
A stable **60 frames per second** screen refresh **has been achieved** by the AM2 team – **matching the coin-op**















Virtua Fighter 3tb will feature 13 backdrops. Their quality won't match these renders, though

LANDER

For all those who believe they don't make games like they used to, Psygnosis brings you something whose inspiration is drawn from some of videogaming's classic offerings



The physics are one of the game's most impressive features yet, despite their complexity, the superb mouse-based control makes *Lander* highly intuitive







Moving around outdoors (above) is relatively easy. Negotiating the confined corridors of the lunar bases proves a little trickier (left)

There are times when the videogaming market seems at a loss for titles that have strayed from the usual racing, shooting and platform jumping. As good as some of those are, often there's little in terms of revolutionary gameplay concepts to confront you. While *Lander* can hardly claim Che Guevara-like status (indeed, Psygnosis cites *Thrust*, *Gravitar* and *Lunar Lander* as part of its inspiration), its gravity-respecting environment does have stern implications in terms of gameplay. It forces you to adopt a refreshingly different approach when piloting your *Lander* craft to accomplish the varied missions which range from simple search-and-destroy sorties to salvage recovery.

The control system couldn't be more straightforward. The mouse's 360° degree movement capability has been directly applied to the antigravitational craft so that, once familiarisation with the few other control keys (namely thrust, fire and tractor beam) is acheived, the control system becomes impressively responsive. After a few minutes, it's surprisingly intuitive. This allows smooth progression through the levels as you carefully balance throttle use and movements of the mouse together with the occasional click of the fire button. As **Edge** found out, roaming freely over inoffensive lunar landscapes is one thing, but battling with enemies as well as gravity demands real concentration from a new *Lander* player. And negotiating the confined corridors of the many subterranean space stations is another matter altogether...

This is also true of the ability to pick up particular objects – a crucial aspect of some missions – by using the craft's tractor beam. After hovering above the required item, pressing the respective key locks it to the craft with impressive consequences. Now effectively part

Format: **PC/PC-DVD**
Publisher: **Psygnosis**
Developer: **In-house**
Release: **February '99**
Origin: **UK**



Given that there's only so much you can do with gameplay-friendly intergalactic terrain, the game's range of environments is commendable













It may have strategic leanings, but *Lander* still offers up enemies to destroy (above)

of the craft, the item now affects its handling. The severity of the distortion depends on the weight of the component in tow, and the proceedings can unmask an interesting challenge should the pendulum effect take over. It's a perfect example of the work that has gone into *Lander*'s intricate physics model.

Lander's inspiration may have come from yesteryear's classics, but its realisation is very much up to contemporary standards. Taking place within accomplished, accelerated 3D intergalactic environments, which have a tendency to offer up wildly changing atmospheric conditions, you must solve puzzles, destroy enemy craft, and negotiate a variety of treacherous missions set on distant moons.

Furthermore, in addition to the usual CD-ROM format, Psygnosis has targeted *Lander* as its first foray into the DVD games market. No major graphical alterations are expected, but in addition to MPEG2 video sequences, you'll be able to select the multiple-angle feature which displays the FMV images in their original wireframe construction.

Of far more importance as far as the game is concerned, however, is the inclusion of a 5.1 channel soundtrack, courtesy of the Dolby Digital-friendly format, which greatly enhances the experience, provided your equipment is up to the task of decoding said digital signal.

Lander has come a long way since **Edge** first saw it in its untextured form at a DVD videogames conference several months ago. With the control system and physics seemingly skillfully executed, Psygnosis should now be left with plenty of time to concentrate on mission structure and other general, yet no less important, gameplay aspects. The framework is there – hopefully the more difficult aspects will be implemented as convincingly.

Psygnosis has targeted *Lander* as its **first foray into the DVD games market. No major** graphical alterations are expected...





Although this image (above) is unlikely to convince you, *Lander*'s dramatic weather effects are particularly well realised

WARZONE 2100

All eyes may well be on the long-awaited *Tiberian Sun*, but the next round of the realtime strategy war is far from decided. Enter the Pumpkin...









Disposing with the barely-realised 3D displays of old, Pumpkin's *Warzone 2100* presents a realistically undulating environment, and a camera that swoops and rotates with an almost dizzying fluidity

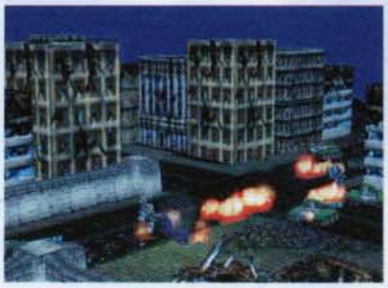
Ever since the atom bomb was invented, it has proved a healthy source of fun: in the '50s and '60s, fear of radiation prompted a slew of 'Terror of the Giant Ants'-type films, while the '70s and '80s spawned earnest television dramas about the aftermath of nuclear war. *Warzone 2100* – a realtime strategy game set in a post-apocalyptic United States – is the latest piece of entertainment to buy in to the concept.

Here, as is often the case with nuclear fiction, the war was started by accident. Or so it seemed at the time. Now, years later, a small group of survivors has discovered there may have been darker forces at play. It's your job, therefore, to guide this collective as they battle with tribes of vicious scavengers, and draw ever closer to the powerful private army behind armageddon.

The story may be a little derivative, but *Warzone* is an impressive addition to the *C&C* bloodline. There are over 2,000 different vehicles to build, three massive campaign maps to explore, 24 missions to take part in and an impressive 400 technologies to research: not just weapons, but radar facilities, armour, new defences, better power supplies and faster factory production. Although this is Pumpkin's first outing, the company has quickly learned that variety is the spice of realtime strategy.

But the visuals will attract the most attention to begin with. The game boasts a beautifully accomplished 3D engine, complete with a swooping, tilting, revolving camera which can both track individual units across the terrain, and soar between various squadrons to present a dynamic and uninterrupted view of the action. The three campaigns take in three landscapes – an undulating desert, a war-devastated city and the snowy peaks of the rocky mountains.

The towering hills and wrecked skyscrapers are more than just aesthetic diversions, however. Scenic features play a direct part in the action:





Both urban (left) and rural areas (above) appear, each bringing new challenges

Format: **PC**

Publisher: **Eidos**

Developer: **Pumpkin Studios**

Release: **February '99**

Origin: **UK**



The flying units provide a great means of surprise attack. They also look fantastic swooping over the landscape

only weapons such as howitzers and mortars can fire over tall obstacles; most units slow down as they climb slopes; movement across a road is quicker than through mud; only hover vehicles can cross water. Reading and understanding the landscape seems set to become a vital skill.

3D acceleration has also been catered for with obvious enthusiasm, as chief designer, **Jim Bambra**, makes clear.

The game boasts a **beautifully accomplished** 3D engine, complete with a swooping, **tilting, revolving camera**

"Full use is made of 3D accelerator cards to create vibrant lighting and explosion effects: rockets fire with a smoke trail, artillery and cannon shells explode gratuitously, flamers ignite enemy units and structures. When units take damage they emit smoke. When they explode, shards of metal and concrete fly across the screen. You can spot where the action is by the amount of smoke and explosions going off!"

Indeed, action appears to be the main focus of the game. Not only combat action, but also exploration and reconnaissance. Players can only improve their units by discovering and researching artifacts from the pre-apocalyptic world, and as these are strewn all over each landscape you won't get anywhere by staying at home and waiting for the bad guys to turn up.

The designers have done everything they can to get you into the action with the minimum of fuss and effort. Pumpkin is making a big deal about its intuitive point, click and drag interface, but this system is getting to be old news. What the game does do well is take all the excess hassle out of combat. Once you've built a few units you can assign a commander to the squadron and send them off into battle; he will then tell his subordinates what to target, and will even radio back to base for reinforcements when the going gets tough.

The unit design system is similarly pared-down. There are three basic components – turret, chassis and propulsion – but hundreds of different types of each. The player simply mixes and matches to create the desired vehicle, whether it be a light, fast scout vehicle or a lumbering battle tank. A great range of weapons, including flame-throwers, missile launchers, lasers and machine guns, complement this diversity.

The fact that you keep the same base throughout each of the three campaigns is also an interesting feature. In most realtime strategy titles, you begin again from scratch at the start of every mission, so there is very rarely any need to adequately defend the HQ. In *Warzone*, a few of the missions are actually based solely around enemy attacks on the base, so players have to learn pretty quickly to keep their guard up. Similarly, military units aren't as disposable here as they are in similar titles. Jim Bambra explains.

"I've always wanted to do a game where units increased in experience and went from one mission to another. The open-ended campaign system makes this a reality. It's possible for the first few units you started the game with to achieve elite status and still be alive at the end of the game. By recycling your veteran units you can transfer their experience to bigger and better vehicles as the game progresses!"

But this has merely touched the surface of what could well turn out to be a key strategy title. Not only does *Warzone 2100* offer incredibly smooth 3D visuals and fantastic effects, but the gameplay is at once idiosyncratic and intuitive. The designers have put in everything that custom dictates (point-and-click interface, huge variety of units, stackable commands, advanced AI), but they've also twisted the genre and made it look new and interesting again. Time will tell if this goes more than skin deep.











Pumpkin seems to have based the game more around exploration and military confrontation than fussing over the minutiae of research and development





Warzone 2100 makes full use of the graphical bounties offered by current 3D cards, as these huge explosions, often consuming the whole screen, show



Options are presented to the player throughout the game via an unobtrusive and stylish visual overlay system





ROLLCAGE

As the videogaming starting grid becomes increasingly crowded with seemingly indistinguishable titles, ATD's late entrant should prove refreshingly different



Of the two versions available, the PC is naturally the more aesthetically pleasing, boasting impressive lighting effects and a velveteen framerate







In addition to dealing with corners, firing a variety of weapons and generally making your opponents' life as difficult as possible is de facto





Carry enough speed into a tunnel and you're free to drive upside down along its ceiling

Format: **PC/PlayStation**

Publisher: **Psygnosis**

Developer: **ATD**

Release: **March '99**

Origin: **UK**

While the current trend sees publishers greenlighting racing projects that promise ever more realistic dynamics within real world settings, it's encouraging to see certain developers prepared to face the oncoming traffic with a strong arcade-styled racing offering.

One such developer is ATD, whose *Rollcage* should have pupils from the 'no braking' school of videogame racing itching in anticipation. This is because although the game features a pleasingly elaborate physics model, it doesn't attempt to recreate anything that currently exists within the vehicle-related world. As such, real world rules no longer apply; the six available cars travel at unrealistic speeds, drive upside down along tunnel ceilings and their design allows progression regardless of which side they land on after a multiple roll-inducing collision.

Furthermore, you'd be foolish to expect to come across any of the tracks on offer by popping over to Silverstone, Monza or Suzuka as they, like the cars, are also fictitious. Whether hurtling through the neon-lit streets of Tokyo or the split-levelled, red Martian dust tracks, the courses have a futuristic feel in keeping with the overall hi-tech nature of the game's content.

The various tracks also have a tendency to be very wide, which promotes the combat aspect of the already frantic proceedings. Scattered at intervals throughout the tracks are a variety of power-ups and weapons that can be used against your opponents as a method of gaining places.

While suitably impressive on the PlayStation, *Rollcage* understandably reaches its graphical peak on the PC as a result of higher res visuals and some superb lighting effects. On the other hand, 32bit owners should have an option in the finished version to switch motion blur on or off, depending on individual preference, and there are rumours of a 60fps mode, although ATD is keeping relatively quiet about it. Other bonuses, however, were clearly selectable from the options menu of the version **Edge** tried out.

On current form, *Rollcage* should inject some very competent arcade-style entertainment into a market currently dominated by reality-based offerings. The action can occasionally get a little disorientating after a particularly violent crash, and trying to regain control after an over-ambitious powerslide can prove hard work – but there is always the 'panic' button that automatically points the vehicle in the right direction. Expect to use it relentlessly next spring...

SEGA RALLY 2

After challenging arcade players with its demanding, highly technical nature, Sega's superb rallying experience currently looks unlikely to stun the console world when it launches alongside Dreamcast



Given the precious little amount of time remaining before launch, these shots fall worryingly short of emulating the quality of the coin-op









Video footage shown at the Tokyo Game Show was disappointing

Format: **Dreamcast**

Publisher: **Sega**

Developer: **In-house**

Release: **November (Japan)**

Origin: **Japan**

As good and impressive a conversion as the Saturn's *Sega Rally Championship* was, it was far from what could be termed 'arcade perfect' – at least not visually. Despite the age-old argument of gameplay over graphics, polygons nevertheless remain an indisputably important part of the gaming equation.

This is where the Dreamcast's processing power comes in. Respected senior Sega employees have long maintained that, with proper programming, the company's 128bit console could display imagery matching its Model 3 arcade board, polygon for polygon. Admittedly, *Virtua Fighter 3* was developed on an older Model 3 version but its Dreamcast incarnation (see p22) looks on course to do just that. Admittedly, the higher-specced evolution of said coin-op board required to power *Sega Rally 2* would make a little more work for Dreamcast but current form would indicate that the console conversion has an awful lot of road to make up in order to replicate its arcade parentage flawlessly on television screens across the globe.

The odds are against success, given the time remaining before the launch. Such an achievement would be unprecedented. Yes, perfect arcade conversions have been achieved before, but only a substantial number of years after the coin-op version's launch had elapsed (and never from propriety arcade hardware handling millions of polys every sixtieth of a minute). *Sega Rally 2* has only been swallowing £1 coins for five months. For a home-based machine to perfectly imitate a technologically leading arcade game barely half a year old is, frankly, unbelievable.

As a conversion, Dreamcast *Sega Rally 2* offers more than the arcade experience; the six varied cars plus bonus vehicles are customisable according to the usual settings – gear ratios, suspension, brake balance, etc. In addition to the arcade modes the game offers a ten-year championship option, with each year comprising four full seasons over six terrains. The 40 courses contain treacherous roads and slippery weather conditions. In addition to the splitscreen, twoplayer mode, an eight multiplayer option via modem (maybe even serial link) is currently pledged.

Time is running out. **Edge** genuinely hopes the videogaming world isn't about to witness another Saturn *Daytona* incident...



All cars should be as detailed and similar to their real-life counterparts as those in the arcade version

BALDUR'S GATE

Dungeons & Dragons-style games are coming back into fashion... But while *Baldur's Gate* might follow a similar storyline, Bioware claims to have updated RPGs for the millennium





Accelerator owners need not necessarily apply: *Baldur's Gate* leads with gameplay

As **Edge** discussed in last month's ECTS report, there seems to be a revival of interest in Dungeons & Dragons-style RPGs, especially among US developers. *Diablo II*, *Heroes of Might & Magic III* and *Lands of Lore III* are all due over the next few months, but perhaps none get as close to the pencil, paper and dice heart of the genre as *Baldur's Gate*.

From the outset it seems Bioware's aim has been to wipe away the influence of Japanese titles like the *Final Fantasy* series and get back to the origins of the computer RPG genre. In producer Ray Muzyka's introduction to the demo that **Edge** received, he talks of admiring *Ultima*, *A Bard's Tale* and *Wizardry* – games which tried not only to use the same kind of characters and locations as dice-based roleplay games, but also the same complex rules and systems. His ambitions are immediately palpable.

Baldur's Gate is based around TSR's influential *Forgotten Realms* campaign world for the AD&D system, using many of its spells, monsters and locations along with the original rules. The major concession to modern videogaming is the realtime rather than turn-based engine.

Although this all sounds complicated, Bioware has created a thoroughly intuitive icon-driven menu. Players start with one character but can control up to six: to move them, click on the character's portrait and then on their destination; to get them to perform an action, choose from one of the icons at the base of the screen. They can also talk to NPCs using a *Monkey Island*-style script menu, and there are plenty of hot keys and shortcuts to make it move smoothly, despite intricate game mechanics.





PC gamers not convinced by *Final Fantasy VII* will surely relish *Baldur's Gate*'s old-school ideals

In many ways, *Baldur's Gate* – with its icons and uncompromising gameplay – is something of a throwback to the days of the Amiga. Indeed, the visuals – attractive as they are – hark back to an earlier era where isometric displays and bitmapped characters were the norm, rather than the exception. What *Gate* misses in cutting-edge graphics it makes up for in size and detail: apparently there are around 10,000 screens of scenery, taking in the whole western shore of the *Forgotten Realms* world. Mountains, ruins, forests and towns all crop up, each drawn with obvious understanding and passion for the source material.

The story is standard D&D stuff. Chaos is beginning to grip the town of Baldur's Gate, beset on all sides by bandits who are stealing the town's resources. It's up to the player to find out who – or what – is behind these attacks. Along the way there are allegedly dozens of sub-plots to get involved in, spells to learn and traps to avoid. In terms of detail, setting, characterisation and gameplay features, *Baldur's Gate* certainly seems to have AD&D cornered. The final test will be whether the gameplay feels linear, or if players are totally free within the game world to follow their own path. Only the latter will spell true success for this interesting enterprise.





In keeping with the game's distinctive style, the interface favours clarity above all else







Bioware claims that the audio content of the game will be amazing, with over 1,200 effects and context-sensitive soundtracks

Format: **PC**

Publisher: **Interplay**

Developer: **Bioware**

Release: **December**

Origin: **UK**

MACHINES

Acclaim is seeking to enter the teeming PC strategy market through the licensing of a decidedly hi-tech title, Charybdis' fully 3D *Machines*











Although the sidebar is fairly prominent, it should be switchable once the game is complete. Once selected, the 'bots are marked with a faint wire cube



The level of detail seen in *Machine*'s Workbots is fantastic. As in *Total Annihilation*, it proves that strategy games are better suited to polygons

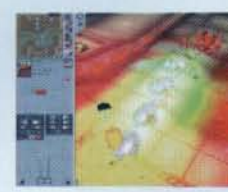
Acclaim's revival and repositioning in the market through the shrewd acquisition of talented developers is well documented. The umbrella brand, Acclaim Studios, continues to deliver a steady stream of what can be considered generally above-average titles. However, Acclaim is a large publisher which continues to bring thirdparty-developed titles, including the top-selling *Constructor*, to videogaming's shop shelves. And that's where *Machines*, developed by UK-based company Charybdis, fits into the picture.

It's a given fact that the market for PC strategy titles is swamped with contenders, and that it takes either a known series of games or something rather different to grab gamers' attention. *Machines* falls into the latter category, as, uniquely, it allows the player to seize the reins of any vehicle under their command.

The game's central strategy action is viewed from the traditional high camera angle that strategy games adhere to. However, the entire landscape and all of the various 'Workbot' craft (isn't someone going to come up with a better name for these things?) that make up your force, are created with polygons. The system allows the view switching, which gives *Machines* its so-called 'USP'. Charybdis intends the firstperson viewpoint to form a core part of its title's gameplay, as the player is better able to deal with the complexities of combat. All will become clear once the game is complete…

Machines is built around a brief story which boils down to: Man makes robots; Man loses control of robots; robots meet robots; robots fight. Once into the game, the basic rules of PC strategy gaming apply, with construction bases, multiple vehicle and weapon types to play with, and ever-more-difficult missions to complete. However, it's 1998, and *Machines* acknowledges this with a 3D landscape, plus a research element which allows the player to build more advanced brains for the Workbots, and various weather effects.

Whether Acclaim's latest signing has the brains and brawn to square up to strong opponents, such as the forthcoming *Total Annihilation: Kingdoms*, will soon become evident.





Lighting effects are well implemented. However, the transition from third to firstperson, while adding much to the gameplay, is far too sudden as things stand. Any Workbot can be used in firstperson

Format: **PC**

Publisher: **Acclaim Studios**

Developer: **Charybdis**

Release: **Spring '99**

Origin: **UK**

RAYMAN 2

After the success of the original *Rayman*, a sequel was inevitable. But will UbiSoft's new 3D reincarnation offer players something new in this multiformat release?







Like Mario and Banjo, Rayman can only survive a protracted underwater excursion if he makes use of air bubbles to replenish his oxygen level



***Rayman 2*'s visuals are intense, although some gamers may actually prefer the fuzziness of the N64 version over the super-crisp PC incarnation (above)**



Offering a spot of water skiing is a neat idea, but proves tricky at this early stage

Format: **N64/PC/PS/DC**

Publisher: **UbiSoft**

Developer: **In-house**

Release: **Spring '99**

Origin: **France**

As one of the PlayStation's first PAL releases, *Rayman* was doubly surprising. Not only was this a traditional 2D platform game on what was then a cutting-edge 3D console, but it proved a massive success. With sales on PlayStation having strolled past the 600,000 mark, and a Platinum release happily notching up yet more units sold, a sequel seemed inevitable. And so *Rayman 2*'s eponymous hero has been dragged into the third dimension for a massively multiformat release. UbiSoft has PlayStation, Nintendo 64, PC and Dreamcast versions racked up for release in the Spring of next year. **Edge** skipped to Paris to meet N64 project manager **Pauline Jacquey**.

"We made a new game," enthuses Jacquey. "The character is the same and the universe has the same atmosphere, but it's very difficult to transform a 2D platform game into 3D. In 3D, you cannot base the gameplay on precision, so we tried to base it on the rhythm and pace instead." That translates into a series of challenging stages, each based around various gameplay devices. For example, Rayman can be hurled through the air by lighting powder kegs, or made to waterski by being towed behind a giant fish, in addition to the usual jumping/swimming/running platform game action.

Jacquey is shockingly honest about *Rayman 2*'s design aspirations: "Nintendo is best at making exploration and adventure games, so we tried to make an action game. It has almost a forced 2D gameplay, but you have big 3D panoramic perspectives." However, Jacquey does the game a disservice, packed as it is with 'events' to keep players on their toes.

Rayman 2 projects an atmospheric and engrossing environment, each level bringing more depth and colour to the screen. From underwater sections that match *Banjo-Kazooie*'s in quality, to lush green platform sections, UbiSoft's new title has much to offer. The only fly in the ointment is that the game is, as yet, an incredibly challenging prospect for the player. But Jacquey – and the other 80 members of the development team – have until spring '99 to file the rough edges from *Rayman*'s 3D excursion.





Throughout the game, a female character, Ly, assists in Rayman's diverse quests

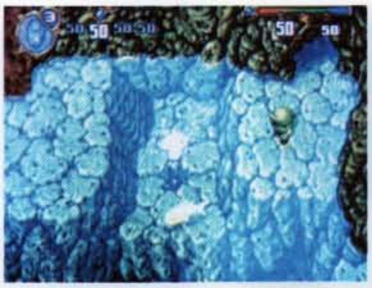




Rayman's curious lack of limbs didn't hinder his ambition to join the circus

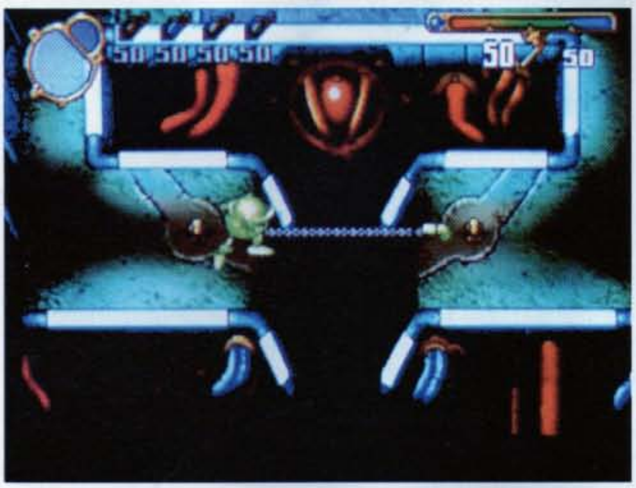
ELEMENTAL GIMMICK GEAR

Hudson Soft has joined the pack of developers chasing after Dreamcast with *Elemental Gimmick Gear*, fusing 2D and 3D into a promising RPG









As with other forthcoming Dreamcast titles, *Elemental Gimmick Gear* is rich in colour. The 640x480 2D sections are, naturally, rendered with much detail

Debuting at the Tokyo Game Show, little is known about the game's play system, although these images suggest a classic Japanese RPG flavour

Amid the neon-lit big names of the Japanese videogame industry, it's easy to forget Hudson Soft. However, over the years, the company has delivered a steady stream of unusual and innovative products (not least the mighty *Bomberman* franchise). And so it comes as little surprise that Hudson's first Dreamcast title, developed by an unknown team called Birthday, is a little eccentric.

EGG (an acronym for *Elemental Gimmick Gear*) is an RPG adventure of the new school, mixing 2D and 3D visual elements to deliver a rich and colourful game world.

As with all Japanese RPGs, the plot would stroll to victory in a 'we are weird' competition. The story begins when a team of archeologists from the imaginary city of Fogna excavate a mysterious machine, and a sleeping man, from an ancient ruin. After reverse-engineering the machine, which they name 'Elemental Gimmick Gear', a copy is made and set to work around the city. But after 100 years, tentacles burst from the ground and drag the city into the depths. The sleeping man awakens, and the player, cast as EGG, must save them all.

The intermingling of 2D and 3D graphics is used to differentiate between exploration and battle phases. Once an enemy has been engaged, the view switches, *FFVII* style, to a closer, 3D camera, until combat has ceased.

EGG's art direction is refreshing amid a sea of polygonal games, with both 2D and 3D modes appearing very atmospheric. Interspersed throughout the game are numerous prerendered movie clips, as is the vogue for RPG titles (although the innovative blending between movie and action that *FFVIII* will offer was not in evidence at *EGG*'s unveiling in Tokyo). With Hudson targeting spring for the game's release, expect more on the game soon.





CGI movies link the action, doubtless filling the game's disk to its one gigabyte capacity and boring many viewers

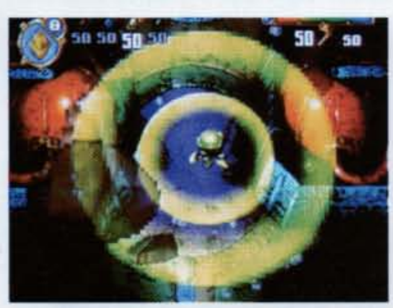
Format: **Dreamcast**

Publisher: **Hudson Soft**

Developer: **Birthday**

Release: **Spring '99**

Origin: **Japan**



All battles take place in 3D, and make excellent use of the Dreamcast hardware to generate spectacular weapon effects





HYBRID HEAVEN

Konami's American dream gone horribly wrong might promise plenty, but there's still much work to do before the prospect of a Bill Clinton clone grabs the votes









Players begin by controlling Diaz. The character has plenty of graceful Lara Croft-style moves, but his fighting system may alienate some gamers







Genetic mutations wander the many corridors. Diaz resembles an Indian Brave (top, centre)



The enemy creatures Diaz encounters appear to have been inspired by *Resident Evil*. One even leaps from the ceiling and on to the player

Despite being only ten per cent complete at the time, *Hybrid Heaven* caused a certain amount of excitement when previewed at E3 earlier this year. The attractive 3D visuals and large, detailed lead character probably had a lot to do with it, but so did the promise of a game which would combine elements of *Resident Evil*, *Tomb Raider*, *Final Fantasy* and *Tekken* into one mammoth sci-fi action adventure.

Since E3, Konami has revealed little about the game and, according to the company's UK office, is unlikely to do so until shortly before the Japanese release. At the moment, the story is something of an enigma. Set in the near future, the action revolves around a plot to kidnap Bill Clinton and replace him with an evil clone (some might suggest this has already happened). The underground terrorist agency involved is determined to prevent a world peace treaty being signed by the US and Russia (not that these countries have any say in the matter now, with the true nuclear threat coming these days from the Middle East). The organisation has also created an army of monstrous mutants, who've accidentally been released into an American city.

To bring order back to the world, the player takes on two roles: Diaz, an American chief-like character who defects from the underground group, and Johnny Slader, a Spec Ops agent who must protect Bill. Gameplay is essentially *Tomb Raider* in look and execution – you get a thirdperson view and must run, jump, climb and crawl through a series of environments looking for keys and power-ups. When you meet a mutant, though, the combat becomes a weird RPG-style turn-based affair: you approach the enemy, press A to bring up a menu of fighting moves, select one and the character carries it out. As the game progresses, you learn new moves and the character stats improve with experience.

Although *Hybrid Heaven* is visually competent and certainly interesting, it's difficult to see how these game styles will gel successfully. The use of character stats and experience points is a neat idea but, judging by the one level demo **Edge** has played, fights soon become repetitive, despite the growing numbers of moves to call upon. The whole system may need to be tweaked considerably before release to prevent this becoming a mutant more hideous than any of the ingame monsters.

Format: **Nintendo 64**

Publisher: **Konami**

Developer: **In-house**

Release: **May '99 (UK)**

Origin: **Japan**



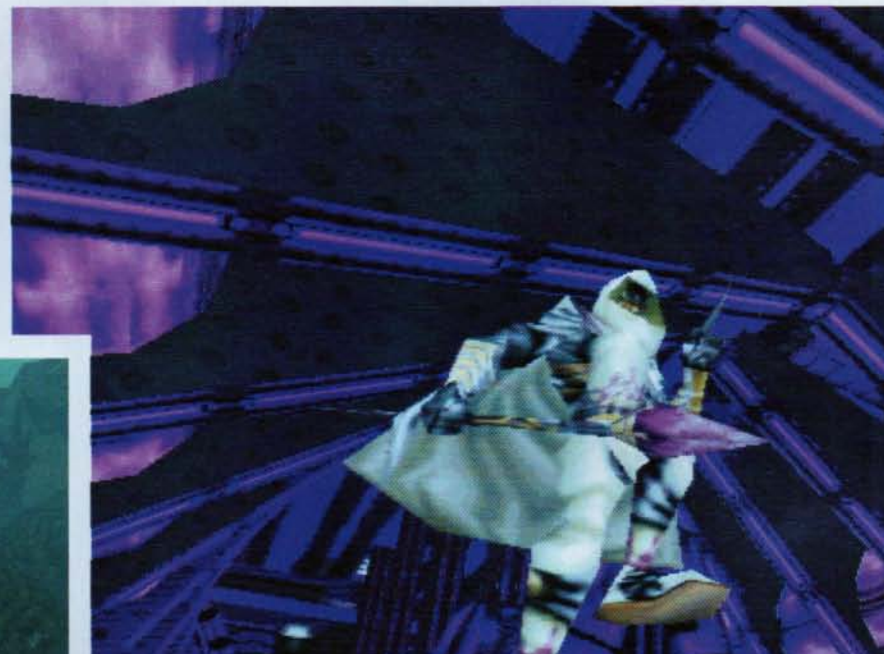


Endless corridors and stockrooms currently lack detail. Hopefully, this will be rectified

ANACHRONOX

While the wait for Jon Romero's *Daikatana* continues to tax diminishing reserves of patience, the sprawling epic *Anachronox*, with its *Quake II* engine, steps into the spotlight







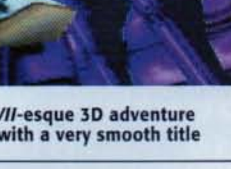
Ion Storm is understandably very excited about its *Final Fantasy VII*-esque 3D adventure which makes good use of the *Quake II* engine to provide players with a very smooth title

After the decidedly luke warm reception handed out to *Dominion: Storm Over Gift 3*, Ion Storm has some serious work to do if it wants to live up to all that early hype. With *Daikatana* proving as elusive as the second coming, absolution may well be left, in the short term at least, to forthcoming sci-fi epic, *Anachronox*.

Just as *Daikatana* is Jon Romero's baby, this bloated RPG fare is the dream project of Tom Hall, another of id's legendary start-up team. Taking inspiration from the likes of *Final Fantasy* and *Chrono Trigger*, Hall's vision is a 3D RPG in which the player has control over three characters at a time, from an eventual selection of seven. Size matters to Hall as much as it does to that French woman in the new Renault Clio ad, so there are around 100 locations in total to explore, spread around an entire galaxy.

As for the plot, Frank Herbert's lumbering opus, *Dune*, seems to have provided the core. The player starts in Anachronox, an ancient city apparently once occupied by a dying alien race, infected by a hideous plague. The city exists within a Sender – a sort of hyperspace portal created by the aforementioned alien race. Dozens of these Senders are spread throughout the galaxy, creating handy trade routes. Unfortunately, the game's heroes, Sly Boots and Stiletto, have discovered that these portals may be part of an evil plan to make the galaxy implode. And it's the player's job to guide these dubious characters through space, battling over 150 types of baddie and ultimately getting to the root of the massive interstellar conspiracy.

Although a thirdperson RPG adventure with realtime combat may not sound all that innovative, there are some nice touches. One of the characters controlled by the player is a mad scientist who has developed a brand new weapon system that makes it possible to combine modules and effectively create customised weapons. However, of more immediate interest to id fans is the game's use of the *Quake II* engine, making for a smooth engine and detailed scenic visuals. Architecture at the moment seems to draw heavily from 'Star Wars', but with so many locations on offer, expect plenty of diversity to appear in due course. Whatever the case, this is certainly a more ambitious project than *Dominion*, and much more in line with what **Edge** was led to expect from this celebrity-strewn outfit.





Despite their variety, the 'Star Wars' influence displayed by the title's numerous futuristic settings is substantial

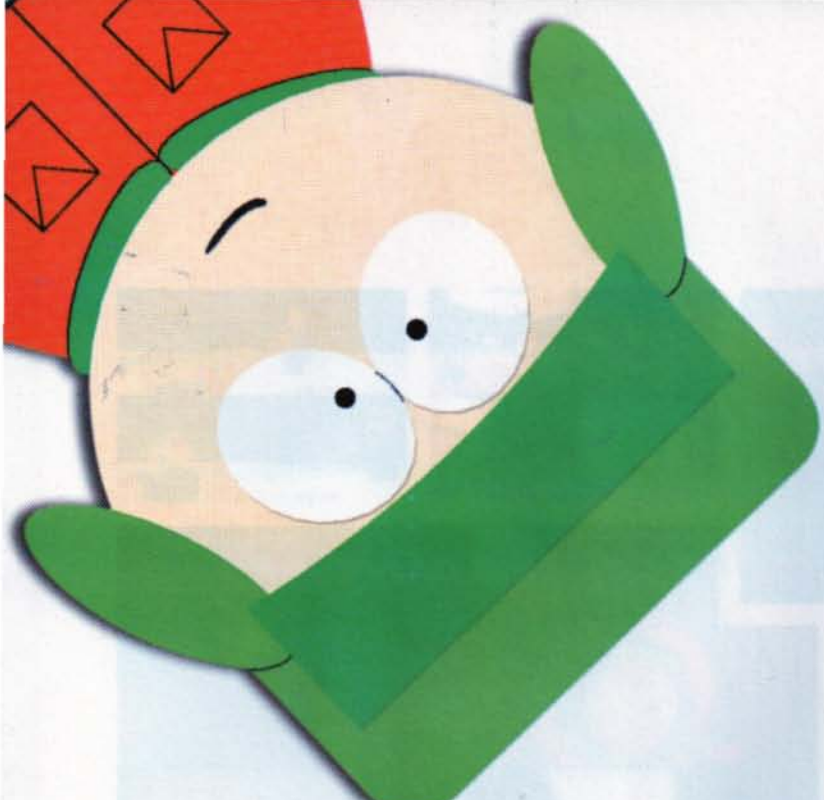
Format: **PC**

Publisher: **SquareSoft**

Developer: **Ion Storm**

Release: **Early '99**

Origin: **US**





SouthPark
Deeply Impacted

A strange meteorite has struck the earth and is threatening to engulf South Park with badly drawn zombies, robots and killer turkeys. Only Kyle, Stan, Cartman and, of course, Kenny can save the day...

A less likely candidate for conversion to a Nintendo format could not be found. 'South Park', the most outrageous cartoon ever to hit the televisual mainstream, is about as far from the 'kiddie console' Nintendo 64 stereotype as could be imagined, but that's exactly where it's headed. Which might be a problem, to say the least.

Riddled with blasphemies of the highest order, 'South Park' the cartoon has famously caused a stir with so many strains of society. Where 'The Simpsons' delivered its sometimes sharp social commentary wrapped in a cushioning layer of family values, with the dysfunctional household somehow pulling through in the end, 'South Park' is far bleaker. Single-parent families, religious divisions and social deprivation are all dragged through the razor-toothed mill. The videogame licence could attract the interest of censors and concerned parents like none before, and for that reason alone





Format: **Nintendo 64/PC**

Publisher: **Acclaim**

Developer: **Iguana US**

Release: **February '99**

Origin: **US**









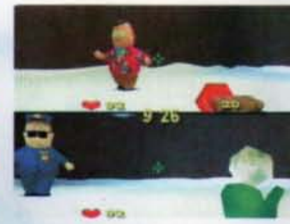
Let's face it, *Turok 2*'s cerebral bore is no match for *South Park*'s sniper chicken, 'yellow' snowballs, alien dancing ray and cow launcher

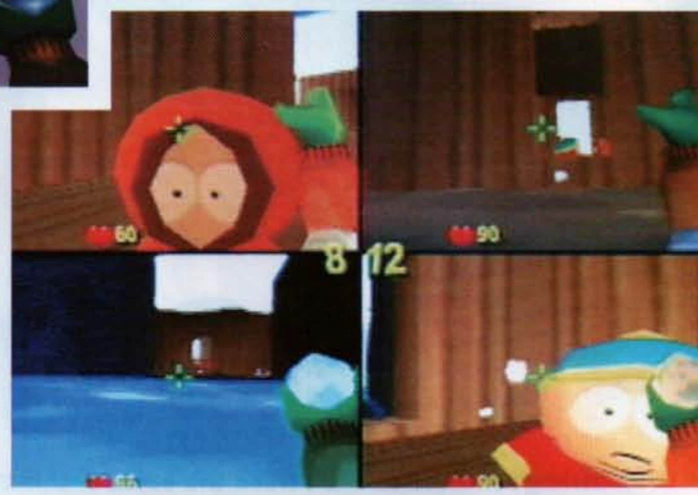




The boys' translation from 2D cut-outs to polygonal models has been remarkably successful. Licensor Comedy Central has been highly watchful of the game's visual style







Edge was keen to see how Iguana US was going to tackle such a controversial licence. A recent Stateside excursion provided the necessary time to discover whether justice was being done to an outrageously original property at Iguana's Austin, Texas HQ.

Taking the recently completed *Turok 2* graphics engine as its foundation, *South Park: Deeply Impacted* is, predictably, a firstperson shoot 'em up. Five years ago when 2D platformers were all the rage, the game would undoubtedly have followed that route. Now, with firstperson titles flavour of the month, that's the path sometime-Scotsman and now full-time project manager **Neill Glancy** and his team have taken. Utilising a completed 3D engine has hacked months from the development period, and follows Acclaim Studios' (of which Iguana US is a part) technology-sharing ethos.

As might be expected, then, *South Park* will feature a fourplayer, cuss-fest of a deathmatch to rival *Turok 2*'s, but the oneplayer mode is destined to be faster-paced than the dinosaur hunter's second outing. "We've managed to achieve an incredibly high action content compared to almost any other product on the Nintendo 64," Glancy explains, "and that's due to the artistic style of *South Park* being very simple, very minimalist."

> "We've achieved **an incredibly high action content** compared to any other product **on the Nintendo 64**"
>
> **Neill Glancy**, project manager, Iguana US

For Kenny, Stan, Cartman and Kyle, the transition from 2D cut-out to onscreen 3D hasn't been as traumatic as might have been imagined. Iguana's graphics staff have done stirling work recreating the boys, along with Mr Garrison, Chef, Mayor and many more characters, as polygon models. However, due to the models being essentially flat-shaded, significant savings have been made in the demands of the graphics engine. "At the moment we're working on doing some optimisations to pull the framerate up over what's normally considered acceptable for a fourplayer N64 product," says Glancy. "Fifteen to 20 [fps] is the average. I'd like to see 20 to 25."

Glancy's rather curious depiction of the oneplayer game as "a modern hybrid of a missile command concept," seems to undersell the project. It begins to make more sense when he adds that, "We have an area which is determined as a 'goal zone' and we have the enemies spawning from the other end of the map. Their objective is quite simple: get to the town and wipe it out." The foes are all 'South Park' regulars. From the 'Braveheart' turkeys to the Worcestershire Sauce zombies, fans of the series will doubtless revel in the opportunity to replay the antics of their diminutive anti-heroes.

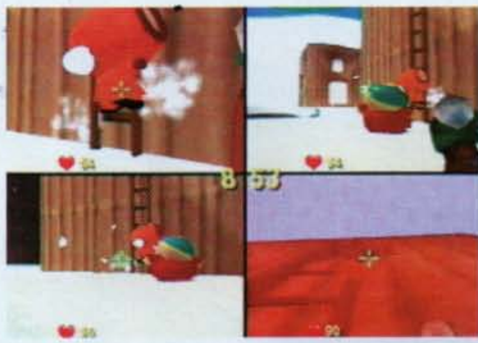
Enemies are divided into 'tanks' and 'minions', with the former spawning the latter during combat to protect themselves. "We've had in excess of 15 enemies onscreen, and that gets really intense!" Glancy grins. Failure to prevent a tank reaching the town results in it being removed from the map, via an appropriate

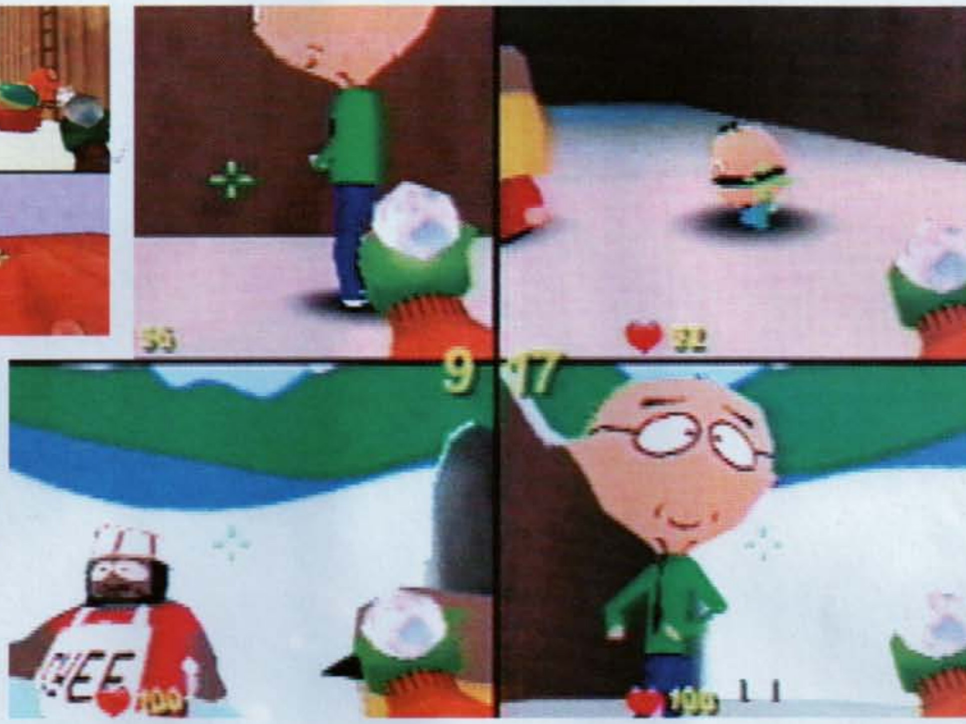






DMA likes sheep, Iguana US prefers cows, okay?







Because the visuals are relatively simple, a higher framerate (around 20-25fps) than most comparable N64 titles is being aimed for in *South Park*

animation, and then tallied for later use. And at the end of each bout, you have to play a penalty round.

To help protect their home town, or to assault each other during multiplayer games, the kids have access to a suitably bizarre armoury. Interestingly, only by gathering the full quartet of crazed kids as the game progresses can all the weapons be carried, with different characters using different weapons. Snowballs, sniper chickens, alien dancing rays, all the way up to a cow launcher are on offer, all of which have secondary fire patterns, similar to *Unreal*'s. Or not. Holding down the trigger when throwing a snowball results in a zipper being undone and… suffice it to say, what's hurled is yellow. "We're really conscious about the multiplayer stuff – what's good, what's bad. We're focusing on making the multiplayer game tremendous fun," declares Glancy.

"The dialogue is tremendous," he boasts. "It's really going to be very, very funny. And it's all going to be custom – obviously there will be certain phrases from the show – 'Oh my God, they killed Kenny,' all the things people will expect. But we felt it was important to have fresh material and fresh laughs." Fans of the cartoon may blanch at the prospect of anyone other than Matt Stone and Trey Parker penning the script for the game, but all the text and visuals for the game have had to be approved by them. "It's been generated by myself and two other team members," smiles Glancy.

According to Glancy, the once family-standards-obsessed Nintendo of America is, as yet, unbothered by the content of *South Park*. He's working to the same set of broadcast standards that apply to the cartoon, although those who have seen the series on either Channel 4 or Sky One will know exactly what that entails. "We have to follow broadcast standards. So anything that you hear said in the show, in terms of expletives that are bleeped, will be bleeped in the game," he claims. However, the US version of 'South Park' was slightly different to the UK's, due to differing broadcast regulations. Where that will legally place companies that will import the US iteration of the game isn't clear.

So important is the use of speech in *South Park* the game, that almost half of its allotted 16Mb cartridge is being given over to the storage of samples. And the same pool of vocal talent has been roped in for the game. However, once Glancy divulges that Parker and Stone are in fact keen videogamers themselves, it soon becomes clear that talking them into making a digital version of 'South Park' can't have been too hard. What Nintendo – and more importantly the censors, public and press – will make of the final game is another thing altogether. For now, **Edge** reserves copyright on the phrase, 'Oh my God, they killed Iguana…'



A PC version is also in the pipeline, but the sheer intensity of fourplayer games on the N64 means that the Nintendo iteration is the one to watch

Holding down the trigger when throwing a snowball results in a zipper being undone and… suffice it to say, what's hurled is yellow





Mutant turkeys: all in the true spirit of the cartoon



Blue Stinger

The big noise surrounding upcoming Dreamcast titles may currently concern Sega's coin-op conversions, but Climax Graphics' 128bit action-drenched adventure title looks set to create a cacophony of its own



With over 200 massively varied locations, *Blue Stinger* makes excellent use of Dreamcast's much-touted polygon capabilities to create a deep, credible (and incredible) atmosphere. Think realtime *Resident Evil* on steroids (but minus the zombies) and you're some way towards understanding what it's all about...







Producer Shinya Nishigaki was influenced by Hollywood blockbusters during *Blue Stinger*'s production. The evidence is certainly in these shots

Currently rocketing from total obscurity to high priority in Dreamcast's most-wanted-software list, Climax Graphics' *Blue Stinger* is an all-action, thirdperson shoot 'em up that takes Sega's console by the scruff of its neck and attempts to shake the best out of it. Following **E**64's first look at the game, **Edge** met with producer **Shinya Nishigaki** at Climax's HQ to talk about *Blue Stinger*, Dreamcast and what the collision of the two will offer...

Edge: What do you think *Blue Stinger*'s strongest asset is?

Shinya Nishigaki: I believe the most important thing is that we fully use the capabilities of the Dreamcast graphics card. We wanted to see how far we could push the Dreamcast in terms of realtime polygons. In terms of content, we wanted players to have the experience of a Hollywood movie in an interactive way. Players will become the main character of an action movie.

Edge: Should Dreamcast owners expect pure action from *Blue Stinger* then?

SN: No – half action, half adventure.

Edge: How did the concept for the game come about?

SN: When I was 12-years-old, I used to play with an 8mm camera, so naturally I'm a fan of movies. In Japan it's impossible to make Hollywood-style movies – it's too expensive – but with computers many things became possible. All the stages of movie production have become possible for me to copy.

Edge: Which Hollywood films influenced the look and feel of *Blue Stinger*?

SN: I've been influenced by Kurosawa and Spielberg. But also the newer generation of directors such as John Carpenter and Joe Dante, plus specialists in visual effects. As for games, I entered the game industry because of *Dragon Quest*. I think the emotional parts of my game have been influenced by *Dragon Quest*.

"In Japan it's impossible to make Hollywood-style movies – it's too expensive – but with computers many things became possible"

Edge: Is *Blue Stinger* aimed at any specific age group?

SN: We're particularly targeting people who rent Hollywood movies during the weekend; people who do not have a great experience of games but who like movies. Because of that we wanted to make a movie-like game with an easy interface.



The range of weaponry at the player's disposal is fantastic, and runs the gamut from light sabres to rocket launchers. All seem to strike home to dramatic effect

Format: **Dreamcast**
Publisher: **Sega**
Developer: **Climax Graphics**
Release: **December (Japan)**
Origin: **Japan**









The gap between onscreen and rendered characters (above) is starting to narrow









Blue Stinger's environments may appear rather garish in places, but you can't argue with the detail level



Edge: You're talking a great deal about Hollywood. Is the game actually designed for the US market?
SN: No, that's not our intention. Influence from the visual effects in Hollywood movies is strong in Japan, too. It's not really a character game; *Blue Stinger* falls into a genre that did not exist before in Japan. I want to see it as a new genre for Japan.
Edge: Do you view Warp's *D2* as a game you'll be competing with?
SN: Not really. Like *Blue Stinger* it's creating a new genre. I played the original *D* – I thought that more games like that would be a good thing for the market.

"Influence from the visual effects in Hollywood movies is strong in Japan. *Blue Stinger* falls into a genre that did not exist here before… I see it as a new genre"

I'd prefer to view *D2* as a partner.
Edge: Like many titles today, including Sega's own *Sonic Adventure*, *Blue Stinger* offers multiple characters. How does that affect gameplay?
SN: You can select two characters – a 'standard' type and a 'hard' type, providing different game feelings. For example, the combination of Elliot and Dogs – they use different weapons and have very different characteristics.
Edge: The game features some pretty spectacular explosions. How many types of weapon can you use?
SN: There are eight different types of weapon, which you keep with you throughout the game.
Edge: And what about other items?
SN: There will be many available, but I can't tell you which ones!
Edge: The backgrounds are very detailed, but how interactive are they?
SN: Basically, if you are close to an item you push the 'A' Button to search. Then, if there's something there, you can take the object. You can eat, drink, throw away, etc.

Technicalities

Edge: What about ingame actions?
SN: The character can climb – on tables, for example – search, walk, push, swim and drive vehicles. We animated everything using motion capture.
Edge: What about level design – what areas have you built for *Blue Stinger*?
SN: There's a city stage and a harbour area, plus the character will also enter the 'Brain centre', a power plant, and various laboratories. Each area will include several smaller areas. In the city area, for example, there is a supermarket and an arcade.
Edge: How big are the level maps?
SN: Well, there are over 200 locations. It's a very large game and everything is interconnected. We don't know exactly how many hours of play the game will offer – probably between ten and 12 hours.
Edge: And what kind of enemies will players encounter?
SN: Players will meet huge monsters, called 'Dinausites'. There are several different types – piranha, barracuda and human Dinausites, plus flying and dragon



Producer Shinya Nishigaki (above) and designer Atsushi Yamamoto (right)



***Blue Stinger*'s Dinausite enemies – especially the larger variety (right) – look like formidable opponents. No wonder the designers at Climax considered the inclusion of a rocket launcher a necessity...**























Lighting in the game is totally dynamic, thanks to the PowerVR 2DC graphics card's built-in effects. Flying female character Nephilim lights the way for the player to follow

varieties, and more besides.

Edge: How many polygons are used to build the characters in the game?

SN: Between 2,000 and 3,000 polygons per character, although the figure obviously depends on each character.

Inside Dreamcast

Edge: Sega initially claimed that all Dreamcast titles would run at 60fps, but that's not the case for *Blue Stinger*, is it?

SN: We use a refreshment rate of 30fps. We could have used 60fps, but because we wanted to display lots of creatures, we had to rethink things.

Edge: During your time working on Dreamcast development, what have you found to be its strongest feature?

SN: The number of polygons it can display is important, and there's also the lighting effects. It's also very easy to develop on Dreamcast; there's good support and some good libraries. There are also some impressive sound filters.

Edge: So what kind of lighting effects are you using in the game?

SN: Basically we use two sources of light. One is 'Nephilim' [a flying female character], who is a moving source of light. After that we have the weapon effects, and we also have the regular map's lights. But for realtime lighting we use Nephilim and the weapons.

Edge: Do you think you're really pushing the Dreamcast hardware?

SN: It's difficult to say. We're not using all of its capabilities – for example, we're not using the bump mapping, but we are using the lighting features. There are always many different ways to use any hardware. It's actually very hard to answer that particular question.

Edge: Have you encountered any problems during development?

SN: Because Dreamcast is new hardware, there is a kind of technical 'trial time' to learn. Giving a good level of detail and realism was the main difficulty we've encountered to date.

Edge: You mentioned sound – how are you using the Dreamcast's Yamaha audio processor with *Blue Stinger*?

SN: We only use CD music in the opening and end sequences. In the game we use the sound internal chip for the music; the sound and surround effects are excellent.

Edge: When will *Blue Stinger* be finished?

SN: We want to finish it very soon – the release is very soon! We will not release the game at the console's launch – we'll release it later, in December.





At last, a sensible, everyday solution for bagging a fluffy toy at those sideshow shooting galleries



EVERYTHING IN BLACK AND

GOD GAMES WORK IN MYSTERIOUS WAYS. BUT PETER MOLYNEUX HAS THE RIGHT TO CLAIM DIVINE INSPIRATION, FOR HE SPOKE FIRST UNTO THE MASSES WITH THE SEMINAL POPULOUS. NOW HE HAS RETURNED WITH A NEW FAITH, IN A DARKER SHADE OF PALE…

Format: **PC**

Publisher: **Electronic Arts**

Developer: **Lionhead**

Release: **Autumn '99**

Origin: **UK**

Late evening, couched within the discreetly opulent belly of **Peter Molyneux**'s greenbelt home, **Edge** is playing a game with nearly a dozen members of its host's development team. But there's nothing electronic in sight, not even a television set, and no home system caters for this many players. For this is Balsac, a deceptively simple puzzle game involving dozens of awkwardly shaped wooden pieces which must be stacked or passed on for the cost of a bean. Should that skewed, cylindrical 'T' piece be politely absorbed into the pile, or sent to lumber a vexed opponent? It's all about how aggressive you are, coupled with an almost spiritual sense of balance. And that, perhaps, is a fitting introduction for Molyneux's own latest creation, *Black and White*.

Wind the clock back 12 hours, and he's showing off the game at his resolutely highbrow and low-ego development base, Lionhead Studios. Nestled on an innocuous research park on the outskirts of Guildford, the company's office is playing host to the gestation of what could be a revolutionary title. A rundown of *Black and White*'s ambitious content reads like a wish list of cutting-edge computer game technology: morphing polygons, context-sensitive music, realtime physics, animation generated on the fly, procedural textures, facial expressions, and some of the most complex artificial intelligence ever realised. The story of game creation, it seems, is about to begin a fresh chapter.

"The first game I did had to be impressive," Molyneux understates. "Here I was, leaving Bullfrog, and everyone was saying, 'Was it Peter or was it Bullfrog?' So my main thought was that the game had to challenge every single aspect of computer gaming." Additionally, he states, "It had to be an impressive game, because you don't persuade all these brilliant people to come and work at Lionhead with a twat like me unless you have a good idea!"

Molyneux views *Black and White* as the logical conclusion of a path which trails all the way back to 1989's *Populous*, his

WHITE MAKES SENSE



paradigm god game. "They get smaller and smaller in scale," he admits. "After that there was *Powermonger*, which simulated a country – instead of a whole world – in a lot more detail. Moving forward from that was *Syndicate*, which was a city. That was the first game that I designed which allowed people to be good or bad. And then I moved on to *Theme Park*, which was a lot closer in scale – you had to worry about people eating and going to the toilet. Finally came *Dungeon Keeper*, which was probably the most interesting."

As Molyneux's game worlds have decreased in size, the complexity of the AI required to make them convincing places has conversely increased. *Black and White* is essentially not the simulation of a world (although that is an adjunct to its core purpose), but of a single living thing. Only through nurturing, teaching, torturing and taming a selected creature will you discover the secret of *Black and White* – and in the process reveal something about yourself. He hopes that like Balsac, "Playing *Black and White* is like taking a massive personality test. It reflects what you're actually like as a gameplayer."

What Molyneux and his team are trying to create is a game that reacts to you as a person, a world which changes according to how the player behaves: aggressive or docile, rapid or ponderous, selfish or considerate, evil or good. Black or white. However, moral judgements have been left at the door, because that isn't the game's agenda, and would ultimately spoil the fun of someone wishing to be either terribly unpleasant or angelically good. And besides, Molyneux would never like to be thought of as judgmental… would he?

BORN TO RULE

Black and White casts the player as a powerful sorcerer king, ruling over the variously populated tribes that live on a picturesque island. Lionhead is theming these around historical human races, as did Sid Meier for *Civilization*, with Vikings, Egyptians, Aztecs, Chinese, African and Celt groups. At the outset of the game these villagers have no grasp of the concept of good or evil, living instead in a world of happy neutrality. "There's no conflict, there are no wars, no hunger. These people are perfectly happy," Lennonises Molyneux. The entry of the player to this utopia brings a new and potentially turbulent element to life, as you employ various – sometimes nefarious – means to make them worship your sorcerer alter ego.

"You can be unspeakably cruel to these little people if you want to. You can thrash them to within an inch of their lives," reveals Molyneux, displaying exactly the kind of personality trait that *didn't* create *Theme Park*. "To be honest, the little people have always got on my tits in games! When they ask for something, I'm not really too interested, I've got greater things on the boil." Leaning forward he gleefully intones, "My citadel and all the landscape slowly morphs into something dark and scary and horrible."

Theme Park, it seems, was a blot on

Park was nice. I definitely did it because of Syndicate – everyone said it was horrible. And my mother said, 'Peter, this isn't very nice, all this killing people. I hear you can kill babies in your last game!' So much for the nice guy image, then, although changing your design ethos to keep your mum happy must at least count for something on the day of celestial reckoning.

Game players of an altogether more pleasant disposition can take a different approach to Molyneux (although the 'nice guys' at Lionhead had scorn vicariously poured upon them during Edge's visit). The development team is working hard to forge the 'white' side of the game into a worthy opposite to the 'black', with an alternative set of abilities, attacks and spells. Tieing a neat link back to Populous, a magical, mystical air pervades Black and White, and the casting of spells is one of the multiple facets of the game that the player must eventually master.

As light first breaks over Black and White's utopian world, the only mark of your sorcerer's influence is a citadel, standing in a state of gray neutrality, uninfluenced by the player's personality. By cajoling, treating, punishing and generally interfering with the population of the nearest tribe (including the ability to teach them the intricacies of football), your sorcerer's magical powers begin to increase. At this point in game there are no other forces to contend with; the aim is simply to learn the control system, experiment with the various options on offer. And to start growing your creature.

If the need to pigeonhole the indefinable cannot be avoided, then Edge would cage Black and White as being Populous meets Pokemon. The creature that Molyneux and his crack squad of artificial intelligence officers – Richard Evans, Mark thingy and Jonty Barnes – are in the process of giving life to, is part virtual pet, part soldier. According to the player's behaviour, be it nasty or nice, the creature's appearance – and that of the entire gameworld – morphs to reflect the state of play. Care, share and join a knitting circle and you are rewarded with a glowing example of goodness, all light and upstanding. Turn to the dark side and the creature and landscape will twist and blacken, reflecting all the unpleasant effort put into its upbringing.

FORWARD LOOKING

'At the start of the game what you get is what you see, which is the most beautiful world in any game ever. That's the brief,' conjures Molyneux. 'The idea of Black and White is that it appeals to more than just the hardcore gamer, and we're going to do that by making it look gloriously beautiful.' As play progresses, the sea level will gradually fall, revealing more and more of this utopian world.



The Circuit Racing mode confines the player to a track featuring cliffs and unclimbable hills. These elements also manage to curtail some of the





To aid him in his quest, Molyneux has gathered a team of artists – but not necessarily animators – who are currently struggling to grasp the complexities of Black and White's character morphing. 'The good and evil thing has been so difficult to get our heads 'round,' admits ex-2000AD artist Christian whatsisname. 'The evil stuff is quite obvious, but the good thing is a lot hard to get the hang of. They've got to look tough and cool, but they've got to look goodly at the same time.' Irish geezer sheepishly adds, 'It's a bit of a challenge. Maybe we haven't woken up to it yet...'

So far, Lionhead has settled on the player being able to 'grow' several alternate domestic and wild animals. Cows, sheep, lions, chickens, alligators and apes can all be collected for some serious meddling with. ('I really want to get a slug in there but no one's having it,' grins designer Mark Ward). To make matters worse for the art team, Peter wants the creatures to not only morph from good to evil, but from small to large, fat to thin and weak to strong – all concurrently. So all the character models must hold together visually in all the possible



states, with some interesting consequences. 'Daisy the cow is going to be cool when she leans to the good side!' quips Irish geezer.In order that such demanding distortion of the skeletons doesn't fall at the first hurdle, Lionhead's triumvirate of technical gurus, Alex Evans, Jean Claude french bloke, and Scawen scary name, have delivered a superior 3D engine, which has pushed the number of polygons available to describe the central character from 600 up to 1000 per frame, at 30 frames per second. Irish geezer rocks back and shakes his head in near-disbelief. 'Alex is the only programmer I've known who comes up and says 'Use more' and we're telling him we don't want that many polgons!'

Molyneux hasn't been hiring true animators as yet, although one may be added during the later stages of Black and White's development to tidy up any graphical loose-ends. In the meantime, Lionhead's existing art team has been trying to build their skills in that

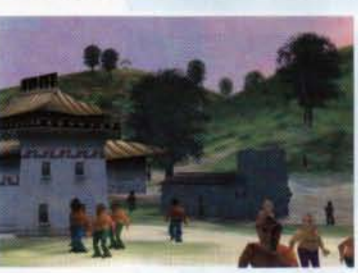


The Circuit Racing mode confines the player to a track featuring cliffs and unclimbable hills. These elements also manage to curtail some of the game's

> MOST GAMES 90% LOOK TO THE PAST FOR THEIR INSPIRATION; COMPUTER ARTWORKS' 50 % EVOLVA SCIENTIFIC USES 50%COMPLEX SCIENTIFIC USES COMPLEX 90% THEORIES 09% THE STATE OF THE ORGANIC ART

area in other ways. 'We we're out in the car park trying to act out the characters, because Peter said we're none of us really animators, so we videoed ourselves for reference. So I was trying to do the cow...' explains Irish geezer. 'And he actually walked like a bad animation,' Ward chips in.

An overall visual theme for Black and White isn't yet sorted, which seems curious until Christian whatsisname hauls out an explanation. 'I think at the moment we're just working and finding out what we can do with the engine. There's no point in going off at a tangent and finding that you can't put half the work in.' There is work going on, however, as Ward unveils amidst his collection of books, candles and ethnic fabrics, 'We're trying to make the good side look quite mystical. I'd like to see things sparkling with spiritual energy.' Lionhead's ambitious programmers are clearly not the only ones with high aspirations for the game.



HEART OF THE MATTER

The demanding technicalities of Black and White's 3D are numerous. The simple matter of requiring 30,000 polygons to draw just one of the sorcerer's creatures, and that the dozens of tribes people, their buildings and all of the trees will also be rendered with polygons, seems enough of an obsticle alone. However, drawing all those objects with triangles does have advantages over the sprites of Molyneux's past games. 'The trouble [with sprites] is that you need every different type of villager, from every different type of angle, doing every different action, and every frame of that action,' points out Scawen scary name. 'So it's real advantage to be doing it this way.'

Problems caused for the programming team by the requirements of the game's design document – and it's author's groundbreaking ideals – seem not to bother Evans, french bloke and scary name. 'You don't know how it's going to pan out – each day we take new directions,' ponders an unperturbed Alex Evans. 'Come back in a month and maybe there'll be something we never imagined. That's the thing that's sad about a lot of 3D games; they're not really pushing the [3D] cards.'

Starting – literally – from the ground-up, Molyneux's latest game features procedural textures. These are texture maps that are generated and blended in realtime, imbuing the rolling hillsides with a smooth, uninterupted blanket covering. And as your playing style is distilled into the game, these texture maps can be either blackened or enriched, a feature which truly illustrates the consequences of your actions. Trees, too, will become chared and gnarled as the player trundles happily towards



The Circuit Racing mode confines the player to a track featuring cliffs and unclimbable hills. These elements also manage to curtail some of the game's

the evil end of the profile spectrum.

Another notable feature of the graphics system is the casting of realtime shadows by all the inhabitants of the Black and White's world. 'These shadows are cast perfectly,' demonstrates a proud Evans. 'Because every point in the land has its own texture, I can literally draw the shadows as part of the texture of the landscape. The sun will move with time, and because it's all dynamic it can redraw the shadows to move around with the sun.' Watching a towering mutation of a lion slouch its way through a village show's the effect at its best; shadows curl and lick over buildings in perfect harmony with the character.

Each of the programming trio has been working on separate aspects to the engine. Scary name has been tasked with bringing Molyneux's twisting visions of creature morphing to fruition. 'We can blend between a standing animation and a walking animation, so the stride actually lengthens as he goes along.' Scawen is also striving to deal the implications of the creature receiving injuries which don't entirely heal. As Peter sets out, 'When you cut somebody's creature, that cut will be in exactly the right place. You can have creatures that



The Circuit Racing mode confines the player to a track featuring cliffs and unclimbable hills. These elements also The Circuit Racing mode confines the player to a track featuring cliffs and unclimbable hills.







‘ MOST GAMES 90% LOOK TO THE PAST FOR THEIR INSPIRATION; COMPUTER ARTWORKS' 50 % EVOLVA SCIENTIFIC USES ’

have cuts that they had many years before that have turned into scars.

'Of course, if you're feeding him a lot and treating him too nicely,' enthuses Molyneux, 'he's going to get lazy. And if he gets lazy then he's going to start putting on weight. All the system still works – he understands that he's got all this huge mass about him.' Realistic physics of this type are fast becoming flavour of the month among videogaming's leading developers, as it arguably delivers more perceived realism than a higher polygon count. Black and White's characters can be set into a chain of fluid motion, reaching carefully for objects, looking at items of passing interest and labouring up steep hillsides. 'They're working out how move across the landscape; they're deciding whether to run or not,' confides Molyneux. 'If one of these guys lost a leg, they'd still be able to move, but they'd hop or pull themselves along the ground.'



The Circuit Racing mode confines the player to a track featuring cliffs and unclimbable hills. These elements also manage to curtail some of the game's

MILITARY INTELLIGENCE

Moulding the creature through various devices and methods to embody your playing style is, insists Molyneux, 'The main point of the game. You can pick up any living thing on your land, anything from a pig to a lion to a sheep to a person – anything that's living, and you can do anything you like to this creature.' But training a living animal is troublesome enough, let alone simulating its changing behaviour, it's reactions, in a computer processor. There have been notable meanderings into the realm of artificial intelligence, perhaps most memorably with Creatures, a simulation of unendearing fluffy mammals which is on the cusp of being updated. Lionhead examined the game before commencing work on Black and White.

'We took a hard look at Creatures when we started off because it had some of the same design aspirations that we had.' With firsts in philosophy and AI, Richard Evans' has views on the matter that simply cannot be ignored. 'We really tried to solve the design flaws in that program. Some of the things they where doing were quite clever, but we were keen to do was do some of the things they were doing but keep it so that it's a game rather than just a screensaver.'

Subtly scathing stuff, but not without reason. Creatures is renowned for it's neural net technologies, which are intended to mimick the workings of the human mind. 'Neural nets are notoriously opaque,' Evans stabs. 'No one, not even programmers, can understand what's







The Circuit Racing mode confines the player to a track featuring cliffs and unclimbable hills. These








The Circuit Racing mode confines the player to a track featuring cliffs and unclimbable hills. These elements also manage to curtail some of the game's worst pop-up excesses



The Circuit Racing mode confines the player to a track featuring cliffs and unclimbable hills.

going on inside them, it's just a load of numerical weights. So even when you've taught your Creature to do something, you can't see whether it's learnt it. It's mind is totally opaque to you.'

Consquently, Black and White's artificial animals will display their behavioural characteristics more obviously than in Creatures, reacting to smacks, strokes, gifts or torture in an instantly recognisable fashion. With all of the other facets of Lionhead's game that will be crying out for attention, that rapid – yet totally believable – response will seem entirely natural. Behavioural models are being constructed around the basic behaviour of the selected animal, so lions are aggresive and sheep are, well, sheep. In addition, it will be able to scoop up any of the tribes people, before growing them into a giant with a personality to suit your requirements.

'There's a lot of feedback so that you become quite attached to your creature –

MOST GAMES 90% LOOK TO THE PAST FOR THEIR INSPIRATION; COMPUTER ARTWORKS' 50 % EVOLVA SCIENTIFIC USES 50%COMPLEX

that's the ambition,' says interface and AI programmer Jonty Barnes. 'And because you take this creature on for such a long time, it really does become incredibly individual. Which I think is the beauty of it.'

Barnes is responsible for realising Black and White's back-to-basics control system, a product of Peter Molyneux's recently declared desire to make his games accessible to all-comers. ('Dungeon Keeper was icon hell,' admits Molyneux. 'If you want people to pick the game up and play it, that's just not the way to go.) Rather than offering you a side-panel scattered with icons, the player needs only to comprehend that most familiar of items; a hand. Floating 'National Lottery'-style above the world, this is the foundation of Black and White's 'gesture system', where people, animals, spells and movements are intuitively communicated through natural movements. Do you want to throw a spell? Then cast the mouse in the direction required. Should it explode in a circle of fire? Trace out a quick hoop with the hand and your wish is granted.

Other possible actions are intimated to the player through the animation of the hand on-screen. If an object can be collected, the fingers reach for it; and your creature can be rewarded with strokes and chastised with slaps. Other motions of the mouse will provide shortcuts such as drawing out the letter 'H' to take the action back to your sorcerer's citadel. Barnes is planning to bury a few hidden extras within the gesture system, although understandably he's not anywhere near revealing what's going in.

ATTACKING WITH AUDIO

Music has long played second fiddle [sic], to the graphical requirements of a game. Now, as with artificial intelligence and physics programming, in-game audio is reaching a point where enough system resources can be allocated to create something beyond the norm. Unsurprisingly, Black and White's audio score is some way past that median point, spritely demonstrating the benefits of yet another cutting edge catch-phrase; 'context-sentsitive music'.

'The piece of music that you'll hear in the background will relate the alignment [good or evil] of the land. And then all the instruments over the top can change depending on what's happening and which tribe they are,' explains Lionhead muso-in-residence, Russell whosit. Pause to examine the happenings at an evil Oriental village and the music will gently blend to create a suitable atmosphere. Skim across to a good Aztec settlement and the audio fades to a new sound set, extrapolated out from a matching set of melodies. 'They won't be cuts in music,' whosit points out. 'The same piece of music will change – suddenly the instruments will start morphing, playing exactly the same themes. Whatever you're listening to to give you some idea of what you are looking at.' For





The Circuit Racing mode confines the player to a track featuring cliffs and unclimbable hills. These elements also manage to curtail some of

for creating atmosphere. All the programmer has to do is call this atmosphere bank, it's all done for him. It will never loop," grins Shaw. And he's not only writing all of *Black and White*'s complex score ("We're going to need about three to four thousand sound effects, which can be brought in and out," he says, seemingly unfazed at the prospect), but is also responsible for creating those algorithms. And with support for new technologies such as Creative's standard-setting Soundblaster Live! card, Lionhead's game is on course to sound as good as it looks.

NO ESCAPE

But none of the game's ambitious advances will be worth a fig if Lionhead fails to make its new project *play*. Too often, companies go blazing off on a technological rampage, forgetting that games are really all about having fun. Lionhead's forceful head of testing, **Andy Robson**, seems to have the matter well in hand, however.

"Everything should be perfect," Robson declares with a fixed stare, sending Molyneux scuttling to make a cup of tea. "If a game's designed well enough, you shouldn't even have to look at a manual. It should teach you as you go along. If you see a game that people didn't like, it's usually one that they found too difficult." To avoid this, he brings in keen work experience volunteers (**Edge** obviously attended the wrong school...) to serve as "Our fresh eyes on the game, basically. If I'm looking at a game for two years, I go blind to it." Only through a tortuous and protracted period of testing will *Black and White* hit the level of gameplay refinement Robson, Molyneux and the rest of the Lionhead team are striving for.

With online gaming's writhing cables about to reach out and potentially snare several million Dreamcast buyers, and general interest in PC network play ever increasing, Molyneux is well aware of the relevance such elements have. "The online aspect of *Black and White* is, for us, a big element of the game," he offers. Lionhead is attempting to make the transition from singleplayer to multiplayer as smooth as possible. "The game learns about you and looks at you constantly," he reveals. "And so when you go online it can find people who are compatible." In order that online players can compete fairly, the game's graphics engine is totally decoupled from its logic system, so that those with slower machines can match the 1,000MHz-PC owners who'll be around when the game is launched.







'Kong' towers above the tribespeople in this Oriental setting (main). The lion in its most twisted and evil form (top right). Daisy the cow indulges in a little Thai boxing (above right) – a little training goes a long way, it seems

Some gamers may find the prospect of *Black and White* examining every aspect of your playing style, both overtly and through subterfuge (players will occasionally be given a stimulus, such as a village in distress, and their reaction monitored), ever so slightly unnerving. Molyneux proves such worries to be well-founded. "At the very start there won't be a computer player," he confides, "but as you play the game the water recedes and gradually introduced into that are these other characters. That's a little bit of a trick, because for the first few levels the game's looking at you and thinking what sort of computer player to put against you." Lionhead co-director **Mark Webley** adds: "We're modifying the computer player based on your personality. So we can continually tweak how it will play."

> "IF A GAME'S DESIGNED WELL ENOUGH, YOU SHOULDN'T EVEN HAVE TO LOOK AT A MANUAL" Head of testing, Andy Robson

As Molyneux might say, that's "really scary stuff." If the computer can learn your playing style, won't it simply become unbeatable?

Jonty Barnes doesn't necessarily think so, only that, "It will force you to change your game," demanding that the player constantly adapts their technique. **Edge** isn't totally convinced that this meshes with Molyneux's desire to create a game playable by all.

However, Molyneux is always watching, always learning, always interested in games and how people play them. "I noticed that when they play a game," he says, rolling out a red carpet to his thoughts, "some people will play one level for 20 hours. They want to get it perfect. Wouldn't it be great to have a game which caters for those people?"

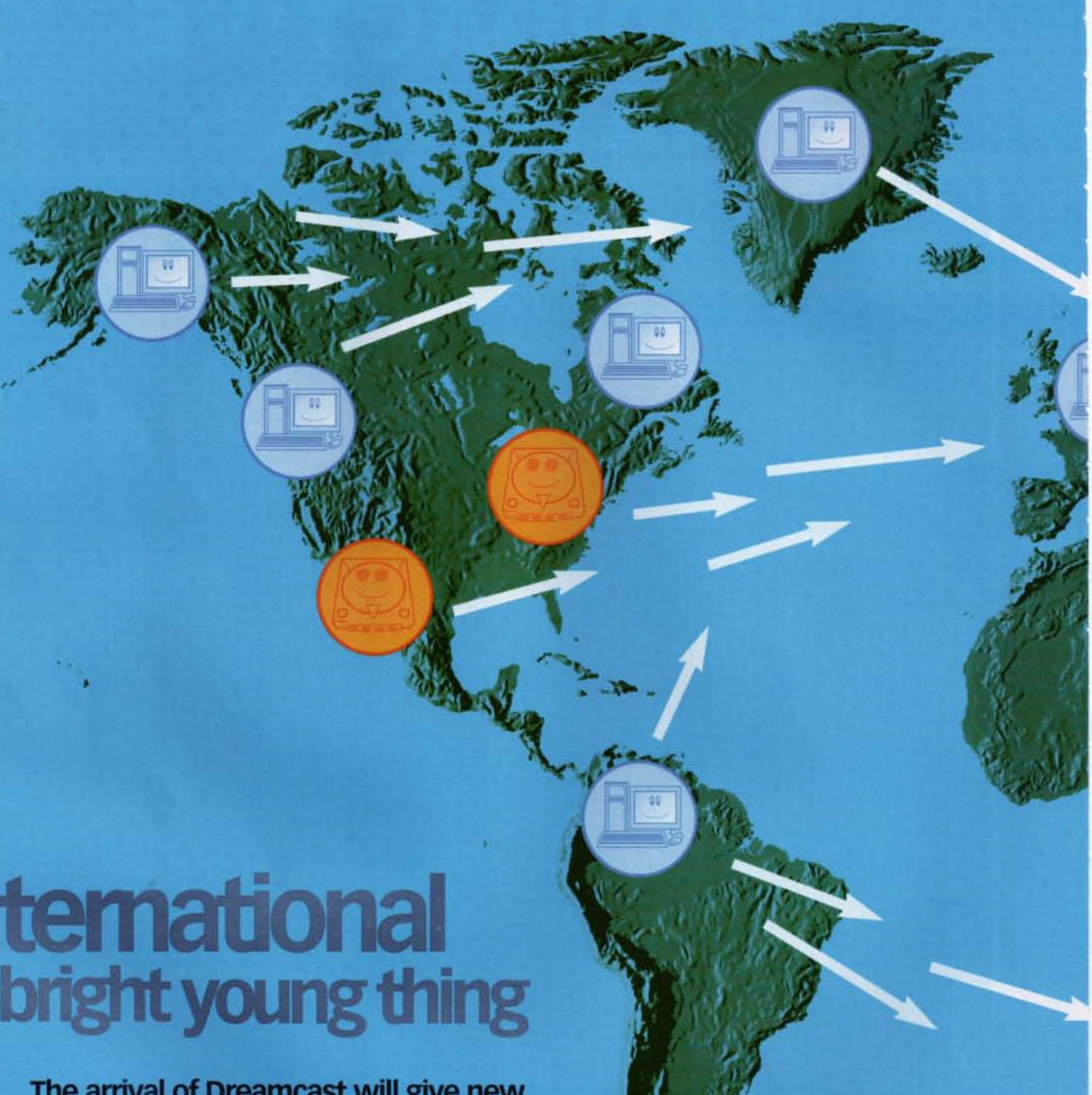
So perhaps that's *Black and White*. Not a virtual pet, not a strategy game, not a game in any traditional sense at all, but something new – a game for everyone, young and old. Quick to learn, easy to comprehend, fascinating to watch and addictive to play, while simulanteously revolutionising the videogaming world.

No small feat, then...



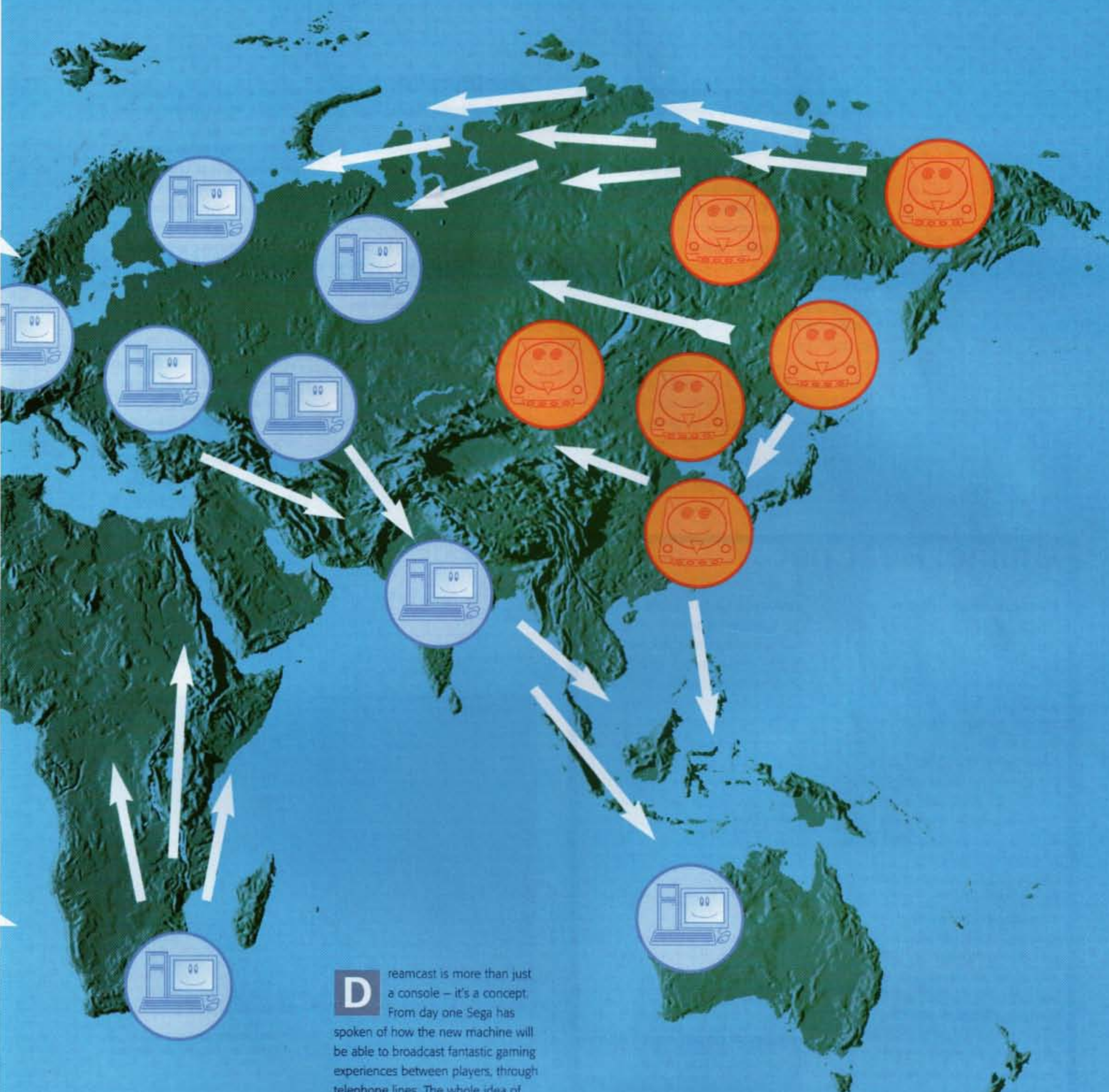


Ex-*2000AD* artist Christian Bravery is hard at work creating multiple versions of each creature, such as this lion



International
bright young thing

The arrival of Dreamcast will give new impetus to the whole online gaming scene. Edge surveys the current online market as the PC continues to strengthen its global presence and Sega confirms plans to launch Dreamcast with a modem in Europe



Dreamcast is more than just a console – it's a concept. From day one Sega has spoken of how the new machine will be able to broadcast fantastic gaming experiences between players, through telephone lines. The whole idea of online gaming, then, is crucial to Dreamcast's very being. Thanks to Dreamcast, millions of console gamers are expected to be able to enjoy the combative thrills of online gaming hitherto reserved to a relatively small community of PC gamers. This, in turn, could lead to the development of a true massmarket for online entertainment. Dreamcast has a tall order before it.

Since Sega announced the new console this summer, however, all sorts of questions have been bouncing around in the heads of European gamers thinking of investing in the machine, as well as game designers hoping to produce new titles for it. Will it ship with a modem? Will Sega support the Dreamcast console with a dedicated multiplayer gaming service? What will the games that take advantage of the machine's online capacity be like? And will the quality of play over the Internet actually be worthwhile?

There have been no clear answers to these questions, and rumours run amok in the gaming community. According to one individual, Sega is concerned about protecting a £199 price point for the Dreamcast at its UK launch. Hardware costs being what they are, it's said the company may be forced to leave the modem out. And seeing as even the PC online gaming market is so small over here, some have concluded that supporting games with servers to host online matches won't be an efficient strategy for Sega. In this downbeat scenario, the machine would be launched in Europe with no online element to it at all. It would be just another console.

More optimistic rumours claim that while the Japanese Dreamcast will launch with a 33.6Kbps (kilobits per second) modem, the US and European versions will sport faster 56Kbps models. Even so, although Sega will be utilising online experience and expertise garnered by Segasoft's US gaming site, Heat.net, as the basis for Dreamcast-oriented online services in Japan and the US, the structure of European support has not yet been outlined.

Green light on the modem

Finally, **Kazutoshi Miyake**, Sega Europe's CEO, has made revelations to **Edge** regarding Dreamcast's modem. "Yes, it will definitely be available on the European version of Dreamcast from day one, but it is a marketing issue whether it will be built-in, bundled or delivered in some other way," he says. "Sega Europe is now working on a marketing plan wherein positioning of the modem will be clarified."

As for the speed of the device, Miyake-san says it will be the fastest available at the time of launch. At the same time he confirms that his company is still working on plans for supporting the online element of the machine. "Sega Europe is in intensive discussions with potential partners for online gaming including server providers and telecommunications companies. Sega takes the online element as the important strategy for Dreamcast," he concludes.

In his comments to **Edge**, Miyake-san is also clear that online gaming will be as much a key to Dreamcast in Europe as it will be in the US and Japan. You should not conclude from this statement that the European version of the machine will *definitely* contain a modem, but if not, one will definitely be available as an add-on. Reading between the lines, it's almost certain that Sega will have some kind of online support for the machine in place by launch.

It's more than a coincidence that Heat.net, the free US Internet gaming service launched by Sega's software subsidiary Segasoft, is in the process of starting up in the UK. **Edge** has learned that Heat.net will appear as a channel within ICL Fujitsu's GamesZone, and will kick off by offering online support for 20 to 30 retail PC games. According to GamesZone's **Geraint Bungay** (formerly of Thrustworld), Heat.net will offer the fastest Internet gaming servers around and as Segasoft is getting involved, it's not too hard to work out the most likely source of support for Dreamcast's online element...

Speaking of the Dreamcast launch, set for next year, Bungay is

Online: Heat.net

Members: 400,000 in the US
Find it at: www.heat.net and soon at www.gameszone.net
Fees: In the US Heat.net is free, though in the UK it will appear as a channel on the GamesZone site where it will charge £5 a month for unlimited play.
Importance: Started by Segasoft in the US, Heat.net will be administrated by ICL Fujitsu's GamesZone in the UK. It could well be the embryo that matures to become Sega's centralised online support service for Dreamcast's European multiplayer gamers. Things are pretty hush-hush at the moment, but the UK online gaming company GamesZone and ICL Fujitsu are set to work with Heat.net to bring the service to the UK by the end of the year. GamesZone's Geraint Bungay told **Edge** he hopes the service will have attracted 100,000 UK members by the end of 1999. It has already been confirmed that Heat.net will be the server for Dreamcast games in Japan and the States.

In the US, Heat.net runs in parallel with another service entitled @Home. Running on cable rather than through telephone lines, it offers more than twice the speed of a normal Internet connection. Just as Heat.net could be the forerunner of an Internet service for Dreamcast owners, @Home may become a Sega channel for cable subscribers who purchase the machine. No plans for a UK version of @Home have been disclosed.

Segasoft's experts and engineers will probably work directly with games developers to help them overcome some of the technical difficulties associated with creating code for online games. The formation of Heat.net two-and-a-half years ago could turn out to be one of the most crucial strategies in Sega's history.



Heat.net is coming to the UK soon. It's likely to form the basis for Sega's online support for Dreamcast in the UK



Sega developers should take a close look at Red Storm game *Rainbow Six*. Based on the Tom Clancy novel it's been a genre-busting hit on the Net

Sega US has promised what it calls a 'massively multiplayer' title and although **it's not clear what's meant by the phrase,** many assume it will be a game accommodating **hundreds or even thousands of players**

extremely optimistic. "When it does come it's going to cause a huge increase in interest in multiplayer via online because there's no need to mess about with TCP/IPX [technical protocols used by PCs]. Just shove in the disc, plug it in, enter a chat server and play games against people on your TV via a telephone line," he says.

According to Bungay, although the system relies on the Internet for delivery and is therefore inherently unstable, it will offer some of the fastest gameplay available in the UK. This is not only down to the fact that new Heat.net servers will be based here in Britain, but will owe something to the backing of ICL. The company has a track record in providing networking solutions to the IT industry around the world. "Other games services who do it themselves call in ICL to fix their servers and their hubs," says Bungay.







Sega has revealed that a modem will be available for the European Dreamcast, which could see *Sega Rally 2* (top), *Incoming* (middle) and *Biohazard: Code Veronica* (above) fully networkable on their UK September '99 release

Is it in the game?

The provision of an online service for Dreamcast is one issue, another is the supply of games that will compel players to wire up to the network and compete against one another. Sega has promised the strongest ever games line-up for Dreamcast's eventual European launch towards the end of 1999, and speculators have estimated that at least half the games initially available for the machine will have a multiplayer element to them. Sega US, meanwhile, has promised what it calls a 'massively multiplayer' title and although it's not clear what's meant by the phrase, many assume it will be a game accommodating hundreds or even thousands of players – something like *Ultima Online* on the PC. It's also thought the game may actually be an Internet-only title with no singleplayer modes, but no details have been released.

Information on Dreamcast online games in development will probably flow more freely after the console's initial launch in Japan on November 27. **Edge** has already learned that Peter Molyneux's Lionhead Studios is considering releasing *Black and White* for Dreamcast as well as the PC (see p50). This will be a game with a massive online element to it. While at Bullfrog Molyneux was responsible for the *Magic Carpet* games which provided excellent network play, as well as *Dungeon Keeper*, a game that really came into its own when played against human opponents. Though neither titles took off on the Internet, they were excellent in multiplayer mode, as anyone who played them across a network will testify. Rage Software's showcase in 3D graphics and lighting, *Incoming*, will also appear on Dreamcast, though this title's multiplayer mode has, as yet, made very little impact.

It's often argued that what Dreamcast may at first need is its own *Quake* or *Diablo* – a game generating a single, massively compelling reason to graduate from single player to multiplayer gaming. And a game that can hopefully generate a communal buzz among gamers who will sell the idea on to their friends. With *Quake II* becoming old news, the PC world similarly finds itself craving a new killer game.

Talk to Dreamcast developers at the moment,



The existence of Battle.net will provide PC gamers with a compelling reason to buy *Diablo II*. The original *Diablo* and *StarCraft* have done very well thanks to the service

Online: BT Wireplay

Members: Over 75,000

Find it at: It's a dial-up service, and log-on software can be found at www.wireplay.co.uk

Fees: There are three ways to pay. For the super-dedicated there is a £99.95 annual subscription rate, while a monthly subscription costs £9.95. Pay these and the call charge when you dial in drops to 1.5p per minute during off-peak times. Alternatively, a pay-per-play system is in place which charges 2.5p per minute off peak.

Importance: Wireplay doesn't actually run through the Internet; it's a dedicated, dial-up, online games service. This means ping times are often far lower than they are on the Internet, which in turn leads to better quality gaming. Of course, it's charged at a premium price. Everything from MUDs (multi-user dungeons) to *Quake II* to *Age of Empires* is supported, as well as simpler games like poker and backgammon.

Wireplay has already exported the technology to Australia, and a Scandinavian Wireplay will soon go live. There were also plans for the service to emigrate to the United States. This endeavour has floundered since BT's merger with Stateside telecoms firm MCI fell through.

Because it suffers from far less lag than Internet-based games services, Wireplay offers the best *Quake II* gameplay available in the UK



however, and you're likely to find them vague, secretive, or both, when discussing the online elements of the games they're designing. Liverpool-based Bizarre Creations, for instance, is currently busy on a Sega-commissioned racing game entitled *Metropolis*. "We're pretty early on in the game development, so we cannot say a great deal about the online side of *Metropolis* as yet," says Bizarre MD, **Martin Chudley**. "However, we do have a few interesting ideas up our sleeves which should appeal to the console gameplayer."

Having previously developed *F1* and *F1 '97* for the PlayStation, Chudley does acknowledge several specific problems his team will be faced with when writing a racing game that will be played over the Internet. "Online gaming presents obvious problems with race games because of latency – AI and player car updates being the most obvious. For example, sometimes you could have cars appearing in front of you from nowhere, or you'll have another car appear to drift straight through an AI car. You also have to make sure that the machines stay in synch if a packet is lost – not a fun problem to sort out!"

Lighting the way

If in need of guidance regarding the move to online gaming, Sega and its developers can at least look to what's been happening on the PC for the past three years or so. An increasing number of PC titles are appearing that have been designed from the ground up for multiplayer action. *Quake III: Arena* is probably the most celebrated example, with id's John Carmack vowing to concentrate on honing the speed of its gameplay rather than designing monsters and levels for singleplayer mode.

Meanwhile, Europe's PC gamers finally seem to be heading into an online revolution of their own, and it should hit peak temperature long before you'll be able to join any Dreamcast deathmatches. This is due to a number of factors, including faster modems, better deals on telephone charges, faster connections and games with well-designed multiplayer gameplay. No doubt the supply of UK-based servers has had a big part to play in the upsurge. Players of *Battlezone* and *Quake II*, for instance, have publisher Activision to thank for the provision of UK servers for these games.

The huge US gaming service Mplayer is about to power up UK-based servers and has already signed a deal with Eidos to host titles like the upcoming 3D realtime strategy game *Warzone 2100* (see p26). By turning to Mplayer, Eidos can avoid the costs involved with keeping servers online, explains **John Kavanagh**, the firm's publishing director. "Providing server support to a large line of products is expensive

Online: Battle.net

Members: 4 million
Find it at: Players log on automatically through *StarCraft* or *Diablo*
Fees: Free
Importance: With Battle.net, Blizzard Entertainment has proven that a game developer can set up an online gaming server with tremendous success. This kind of online support for *StarCraft*, *Diablo* and the upcoming *Diablo II* has arguably enhanced the popularity, longevity and sales of these games. Using Battle.net, Blizzard can also market new level add-on packs for the games. Battle.net was the first online gaming service to get a million members.

Unfortunately, players logging on from this side of the pond often experience crippling lag times. "We are definitely still planning on putting Battle.net servers in the UK and the rest of Europe," counters Bill Roper of Blizzard. "Our goal for Battle.net is to create a gaming service that spans the world." With 1.2 million registered users using the site at least once in 90 days, Battle.net is the largest online gaming service there is.

Battle.net not only gives *StarCraft* more longevity than other games, but may help the company sell add-on packs which include new multiplayer levels and more units







Warzone 2100 sees multiplayer action in a desert setting (above), and offers more urban-based mayhem with its post-apocalyptic city levels (top)

Europe's PC gamers finally seem to be heading into an online revolution of their own, and it should hit peak temperature long before you'll be able to join any Dreamcast deathmatches

and time consuming. Mplayer's server technology already provides superior Internet play for games that are written to take advantage of their API," he says.

Eidos has a particularly sweet deal with Mplayer in that the publisher will get its own channel within the Mplayer Website, where players can meet, play or chat. Therein Eidos will be able to publicise its brands. At the same time, Mplayer also includes a technology that pushes game updates and improvement patches to users' machines if their software has become outdated. This greatly simplifies things, as it means the user won't have to bother seeking out and downloading the relevant software from Websites, which has been a problem with numerous online games – including *Quake II*.

Automatic updating is something usually only found at developer-supported sites like Blizzard's Battle.net or Westwood Studio's Westwood Chat. To be effective, free services like Battle.net (where you can play *Diablo* and *StarCraft*) need to be fast and well-maintained, which makes them costly to run. The games they host, meanwhile, have to be top sellers otherwise the site will get few visitors and thus be rendered pointless. However the benefits of developer-run games services are exciting. By providing free, high-speed gameplay and chat services, Battle.net has been instrumental in building a huge, loyal fan base around *StarCraft* and *Diablo*, ensuring strong sales for the games.

"We have estimated that Battle.net increased *Diablo* sales between ten and 20 per cent," says **Bill Roper**, Blizzard's leading games designer. If nothing else, Battle.net has helped make Blizzard one of the best-known and most-respected PC game developers out there.

Newbies vs veterans

Battle.net isn't without its problems, though, as many users discover when they log on for the first time. Although the system is very stable and easy to navigate, new players are often given an extremely hard time by Battle.net veterans. It's disheartening enough to waste online time (and money) being soundly thrashed by experienced players. But on top of this newbies can often find themselves subjected to torrents of profane abuse from opponents. Many of Battle.net's most ardent members are American teenage boys who seem to share the mentality and vocabulary of Beavis and Butthead. It takes a lot of resilience on the part of new players to overcome this.

The humiliation of newbies isn't unique to Battle.net and has long been recognised as a problem threatening

By providing free, high speed gameplay and chat services, Battle.net has been instrumental in building **a huge, loyal fan base** around *StarCraft* and *Diablo*, **ensuring strong sales for the games**

Online: Interactive Magic

Members: Not disclosed
Fees: $2 per hour
Importance: Alongside EA's *Ultima Online* and the old text-only multi-user dungeons (MUDs), Interactive Magic's *WarBirds* is probably the most successful 'megaplayer' gaming service on the Net. Rather than limiting games to eight, 16 or 32 players, it accommodates up to 300, flying all manner of aircraft in huge, colour-coordinated squadrons. Players with microphones can even talk to one another on channels in the game's virtual radio system. Championed by former USAF pilot and ex-Microprose boss 'Wild' Bill Stealey, the company positions *WarBirds* as a premium service for players who are serious about flight sims.

Players from over 70 countries are signed up to the US-based service and a satellite server has been launched in Germany. Another one will be up and running in the UK very soon. At the same time, Interactive Magic is set to release six new games through IMagic Online including *Dawn of Aces*, a WWI-based online flight sim which will also accommodate massive megaplayer dogfight sessions. It's not all roses, however. The *Elite*-alike *Planetary Raiders*, which was planned for release at the beginning of this year, was canned.



WarBirds is a pilot game in more ways than one. It's the first to use IMagic Online's proprietary MEGAplayer gaming system. Six more titles using the technology are to follow

Online: Mplayer

Members: 1.5 million
Fees: It's free, although it does include links to games that charge either subscription fees, or charge on a pay-per-play basis.
Importance: Mplayer is growing fast, and is soon to open a UK base in Wimbledon. More importantly, the company is touting its proven expertise to games publishers who either don't have the resources or can't be bothered with providing servers for their online games. Eidos has already signed to Mplayer, with a channel dedicated to the giant UK publisher appearing on the Mplayer Website. The service will support Eidos' *Warzone 2100* when it's launched in February. Psygnosis is also negotiating with Mplayer, so it's likely that the Liverpool firm's upcoming batch of PC games will be hosted by the service. Among the 80 games you can already play at the site is the recent hit *MechCommander*, alongside all the usual suspects such as *Quake II* and *Command & Conquer*.

MechCommander is one of about 80 games currently available at the massive Mplayer site. A UK version is to launch very soon



the growth of the online games market. Certainly Battle.net will need better marshalling in the future if Blizzard expects to extend its user base beyond the Beavises and Buttheads of bedroom America.

The problem is, thankfully, being addressed by at least some of the online game services. "This is an important issue and one that could prevent online communities from growing," says **Richard Warren** of BT's Wireplay. "We provide skill ratings and newbie or rookie servers for games. Wireplay Club Captains also organise game nights for particular games and these help introduce new players into the community."

The real question is how can anyone make money **from online games? All sorts of schemes** to this end are **being suggested.** Far fetched suggestions have included the placement of advertising in the **graphics of online games**



Interactive Magic's second MEGAplayer game will be *Dawn of Aces*, a WWI flight sim. One day every game released by the company will have a multiplayer element

Soon to set up operations in the UK after a successful start in the US, IMagic Online takes a similar approach. It offers dedicated training arenas for new players of its *WarBirds* flight sim as well as arenas in which rookie pilots can fight against one another. According to **Scott Hawkins**, marketing manager at IMagic, tuition is offered in five languages, with experienced players teaching rookies the ins and outs of the game. "We want to offer an enjoyable experience to all players, especially newbies. That is a benefit few companies can offer. As for other gaming services, it becomes a resource issue. Companies losing a lot of money may neglect the newbie if resources are limited."

Both Wireplay and IMagic Online are premium services that charge more but promise higher quality multiplayer experiences, which pretty much accounts for their greater levels of attention to this issue. If they want online gaming to truly go massmarket then Sega and its Dreamcast developers will almost certainly have to come up with similar answers.

Show me the money

To those outside such training, ranking and marshalling of players would seem mere quality issues – the real question is how can anyone make money from online games? All sorts of schemes to this end are being suggested. Wireplay and IMagic Online charge users directly either through subscriptions or pay-per-play charges, while Websites like Mplayer and MSN Gaming Zone offer free play sections that are funded by advertising, but also have paid services users can subscribe to in the hope of securing better services and faster connections.

More far-fetched suggestions have included the placement of advertising in the graphics of online games. In racing games, for instance, billboards and trackside boarding that contain paid-for display ads could prove profitable. A similar situation is imaginable for 3D blasters based, for instance, in cities. Ads on the routes most commonly used by Deathmatch participants may even fetch better rates. The most visited locations on the city map would draw the highest ad rates.







Quake and *Quake II* (top and centre) have defined the online scene for the PC. It's thought Dreamcast will need a title of similar importance to make the required impact. Not entirely happy with the previous versions, id Software is working on *Quake III: Arena* (above), a game designed almost exclusively for multiplayer gaming

Online: MSN Gaming Zone

Members: Over 2 million
Fees: It's free, though the DWANGO channel within MSN Gaming Zone charges $1 per hour for the use of higher quality servers.
Importance: Formerly called the Internet Gaming Zone, the retitled MSN Gaming Zone is the second biggest free multiplayer gaming site after Battle.net. At any given time up to around 20,000 people are logged on and taking part in games like Microsoft's own *Age of Empires* or Red Storm's *Rainbow Six*.

Rather than trying to make money from online gaming, it could be that Microsoft has put its muscle behind MSN Gaming Zone in order to highlight online gaming as a benefit to being connected to the Internet in general. The company is far more interested in selling its Windows operating system (which has a Web browser built in) and expanding traffic and commerce at its Website than in any margins to be had from online gamers. That is probably why MSN Gaming Zone is free.

Age of Empires is the jewel in Microsoft's online gaming crown at MSN Gaming Zone



Another idea is to set up online games where you have to buy your weapons, equipment and ammunition using your credit card when you join a game – a bit like paint-balling.

A third and more complex way of making money within games is to let players bring their own money into the game to pretty much gamble, with the online service acting like a casino and taking a cut of the winnings. In a space trading game, for instance, players could buy game currency for nominal amounts of real money – a few pence for a thousand credits, for instance. By building up their virtual businesses, or even stealing money from other players, competitors could eventually be allowed to convert their game money back into real cash, taking a few pounds from the game here and there as reward. Such games would require massive numbers of players to be profitable, however, and as Argonaut's Jez San points out, with real money involved if stealing were allowed legal issues might be raised.

What Dreamcast may at first need is its own *Quake* or *Diablo* – a game generating a single, massively compelling **reason to graduate from single player to multiplayer gaming**. With *Quake II* becoming old news, the PC world similarly finds itself **craving a new killer game**

If you build it...

At the moment it seems as though the good online gaming experiences have the key benefit to the industry of helping sell more games. Advertising revenue, or subscription or pay-per-play charges, are still generally secondary sources of income that can only be generated if the online element of games people go out and manage to attract players to Websites and gaming servers.

Eidos' John Kavanagh is optimistic about the profits that can be made through online gaming. "If you build it, they will come," he claims. "I think that online gaming in the initial phase will largely be advertiser-supported for hybrid games – games with a retail component. In the future there will be many online-only titles as with *Ultima Online*. The profitability will increase as server prices lower and connectivity improves."

Richard Warren at Wireplay, however, stresses quality issues before all others. It's not good enough just to build it, you have to build it well. Online games and services need to improve, and more gaming genres are needed. "A lot needs to be done to understand what makes a really compelling online game and how the range of successful games can be increased," says Warren. "If you look at the few games that really matter online there tend to be one or two titles from a small range of games – namely firstperson shooters, realtime strategy, role-playing, flight sims and traditional card and board games.

"Some common features of successful online games are that they are always easy to understand, easy to join and you always have a strong feeling and knowledge that you are playing against other people. You have to be able to get to know and interact with them through the game. This may be why traditional card and board games are so successful online. They were designed to be social games."

Considering the fact that Dreamcast will need its own *Quake* phenomenon to kick the multiplayer side of things off, what Warren is suggesting here is that Sega's new wonderbox will probably need at least *half a dozen* new, genre-defining games capable of growing their own online communities. Dreamcast's games will need to spread their appeal far more widely than any PC game has hitherto managed. It's an audience of millions Sega will need if it wants to regain the number one position in the games console market. The Dreamcast concept may be right, but to be given any real meaning, strong, broad-based online genres and titles will be an absolute necessity. There needs to be a lot more to Dreamcast than a high-powered box with a modem, a telephone jack and an online account. But then Sega probably knows that already.

Counting the costs

The slow adoption of online gaming in the UK is usually put down to the fact that, as you have to pay for local calls, online gaming services work out to be too expensive for most players. After all, on top of any subscription fee and Internet service account you have to pay your phone bill. In fact, the charges you'll pay for online gaming measure up very well when compared with other leisure pursuits. Here's what the monthly charges are across various services for players participating in three hours of multiplayer gaming each weekend, using normal BT phone lines. Going to a football match just once a month can work out to be more expensive than spending each Saturday afternoon playing over the Net.

Game	ISP	ISP monthly charge	Gaming service	Gaming charge	Call charge	Total monthly cost
Quake	Demon Internet*	£11.75	none	none	1p/minute	£18.95
Quake II	Demon Internet	£11.75	GamesZone	£5/month	1p/minute	£23.95
MechCommander	Demon Internet	£11.75	Mplayer	none	1p/minute	£18.95
Rainbow 6	Demon Internet	£11.75	MSN/Dwango	59p/hour ($0.99/hour	1p/minute	£26.03
WarBirds	Demon Internet	£11.75	IMagic Online	£1.20/hour ($2/hour)	1p/minute	£33.35
Total Annihilation	none	none	Wireplay (pay-per-play)	none	2.5p/minute	£18
Unreal	none	none	Wireplay (subscriber)	£9.95/month	1.5p/minute	£20.75

*Demon Internet currently offers a flat rate unlimited Internet access charge at £11.75. Direct Connection charges £13.95 while CompuServe charges at £19.95. Dixon's FreeServe service, for instance, levies no charge for Internet access but equally gives no guarantee of access or technical support. The quality of connections not only varies between service providers, but also depends a great deal on modem speeds and telephone line quality.



a Qu

In 1980, *Pac-Man* changed everything. Up until that point, there were no game characters – players simply piloted crude spaceships, drove blocky cars, or batted balls back and forth. This was largely, of course, down to the graphics technology of the day, which prohibited anything more complex than basic shapes made out of a handful of pixels.

But as graphics technology continued to improve and game designers became more inventive, companies stumbled upon the idea of offering gamers characters with personality. Namco was the first company to do this (although it helped that *Pac-Man* was a great game). But what turned a gaming fad into a cultural phenomenon was the fact that for the first time, a videogame had character.

Giving videogames a face had more ramifications than merely making them somehow more welcoming to players, though. Suddenly the door for licensing opportunities opened: while gamers wouldn't have warmed to the idea of buying lunchboxes emblazoned with an anonymous space invader, Pac-Man was ideal fodder for such exploitation – and exploit him they did, with Pac-Man backpacks and bedding and all manner of other guff. Pac-Man went on to star in his own Saturday morning television show in the States, while the track 'Pac-Man Fever' climbed to number two in the US Charts in 1982. As one Midway executive bragged in *Time* magazine, "I think we have the Mickey Mouse of the '80s."

Of course, it wasn't long before other companies realised the potential of creating their own videogame superstars. By building a hero from scratch, publishers retained full ownership of the character. This meant that they not only avoided paying licensing fees or royalty percentages to a third party, but also maintained complete control over how and where the character was used. Unlike a thirdparty character, Pac-Man could not be seduced into defecting to Namco's competition. Unlike a movie star, Pac-Man would never be caught in a sex or drugs scandal and lose his market value. And unlike any other 'talent,' Pac-Man worked for free. Perhaps most importantly, gamers loved him.

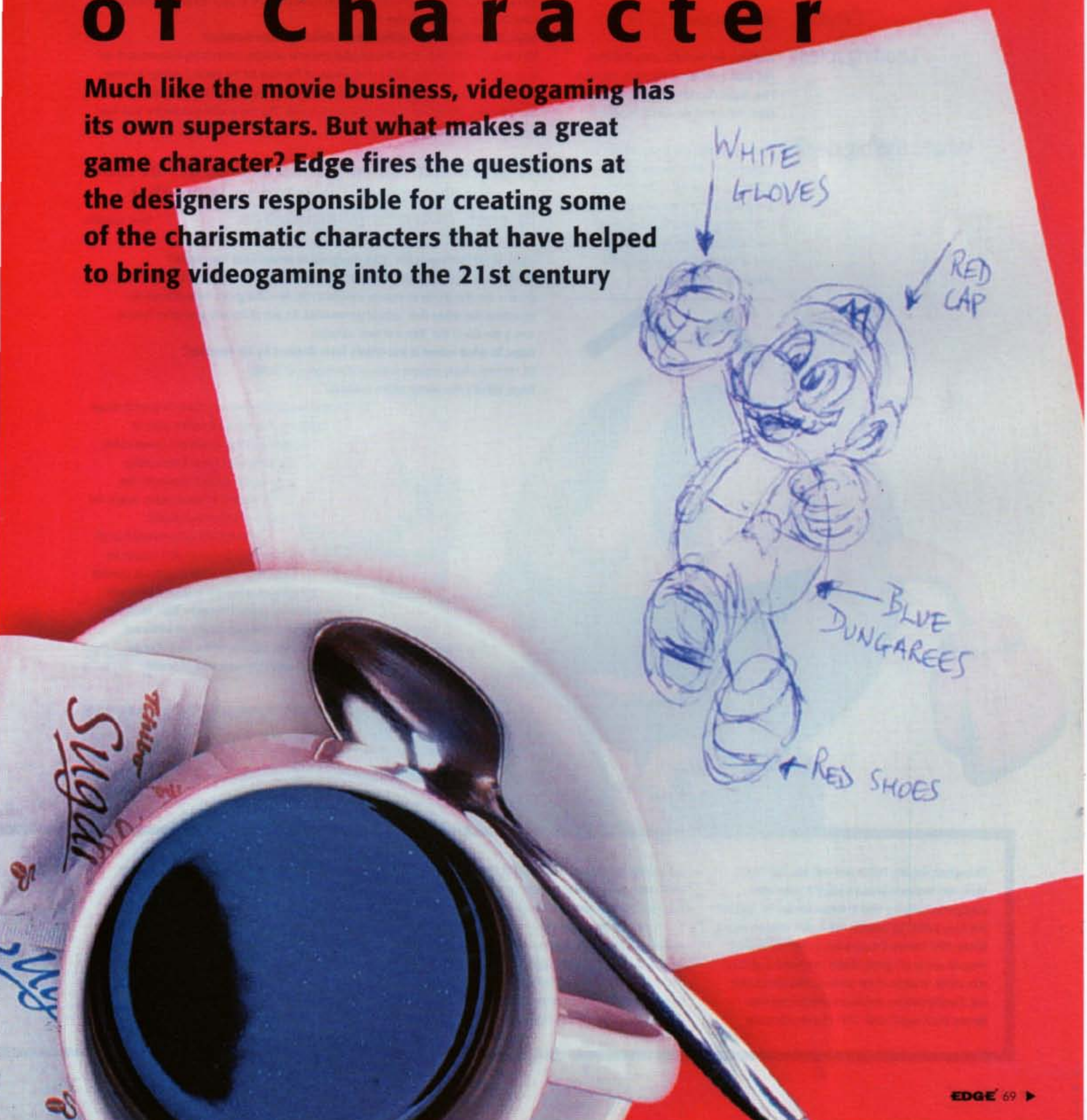
In 1981 Nintendo struck gold when Shigeru Miyamoto – forced back to the drawing board after Nintendo lost the license to publish a game based on Popeye – doodled on a sketch pad and came up with Mario. The rest is videogame history. As with *Pac-Man*, sound gameplay was the bedrock upon which the cult of Mario's personality could be built. But once again, it was clear that gamers relished the chance to assume the role of a cute, likable character.

Nintendo quickly earned a seven-figure income each year from licensing the use of Mario on everything from fishing rods and T-shirts to temporary tattoos. In 1989 *Super Mario Bros 3* sold more than 11 million cartridges worldwide and grossed more than $500 million in the US alone. In 1990 the American Q Ratings (a survey of the popularity of politicians, movie stars, and other celebrities) showed that Mario was recognised by more American children than Mickey Mouse. ▶



estion
of Character

Much like the movie business, videogaming has its own superstars. But what makes a great game character? Edge fires the questions at the designers responsible for creating some of the charismatic characters that have helped to bring videogaming into the 21st century





Pac-Man

Born: 1980

Creator: Toru Iwatani, Namco

Leading roles: *Pac-Man, Ms Pac-Man, Baby Pac-Man, Pac-Man Jr, Professor Pac-Man, Pac-Man Plus, Super Pac-Man, Mr and Mrs Pac-Man, Pac-Attack, Pac-Land, Pac-Mania*

What's the big deal? The original and, many say, still the best character. *Pac-Man* was the first coin-op featuring a personality (despite being just a yellow blob), and he's the reason kids danced to 'Pac-Man Fever' and not the 'Space Invaders Stomp'. Still one of the most recognisable game characters in existence



Edge: Where did the idea for Pac-Man come from?

Toru Iwatani: As I was eating pizza, I took a slice away and looked at what was left.

Edge: How did this idea evolve and change as *Pac-Man* developed?

TI: It started with the action of eating as the initial idea. After that, I decided to add the element of four ghosts as enemies. Just moving around an open field would be too much freedom and no fun, so I set up a maze environment. In order to make a game that even girls who hadn't played many arcade games could play and enjoy, I made the entire game controlled with just one joystick.

Edge: What do you see as Pac-Man's defining characteristics?

TI: I designed Pac-Man to be the simplest character possible, without any features such as eyes or limbs. Rather than defining the image of Pac-Man for the player, I wanted to leave that to each player's imagination. Even the arcade cabinets in Japan did not feature any other representation of Pac-Man besides the pie-slice look. The more anthropomorphic look was designed and added later in the US.

> "Rather than **defining the image** of *Pac-Man* for the player, I wanted to leave that to each **player's imagination**" Toru Iwatani

Edge: What feelings is Pac-Man designed to evoke from the player?

TI: I feel that it's important not to just think of Pac-Man as the only main character in the game – the ghosts play an equally important role. All of the ghosts have different AI algorithms that reflect their comical personalities. It's sort of like asking whether Tom or Jerry is the star of the 'Tom and Jerry' cartoons.

Edge: To what extent is Pac-Man's form dictated by his function?

TI: His form simply represents the personification of 'eating.'

Edge: What's the secret of his success?

TI: Pac and the ghosts represent a cute (or playful) image to players, instead of something scary or frightening. Then, by eating a power pellet, Pac transforms himself from being pursued to being the pursuer. This change in the flow of action makes the game much more dynamic.

With *Pac-Man*, the introduction of cut-scenes [the animation sequences that appear after a few rounds are cleared] gives players a chance to catch their breath and also keeps the pace of the game from becoming monotonous. These intermissions also give players an additional motivation for wanting to play further. Lastly, because of the ease of single-joystick control, the game has an appeal to every type of person.

THE MOUTH: "Either open or closed, it was originally the only moving part. More details were added later, but back in 1980, Pac-Man was defined by what he did, not by what he looked like"

Throughout the late 1980s and well into the 1990s, Mario and Nintendo blazed a trail that every other videogame company tried to follow. On the PC, *Leisure Suit Larry* jostled for position with a slew of axe-wielding fantasy RPG heroes. On consoles, a plethora of perky mascots and goofy game heroes attempted to grab a slice of the limelight. In the arcades, titles like *Golden Axe*, *Double Dragon* and *Shinobi* introduced new heroes. But it wasn't until 1991 that any company came close to matching the appeal of Shigeru Miyamoto's Italian plumber. That company was Sega, with the infamous *Sonic the Hedgehog*.

Sonic was born almost out of necessity. As Sega's 16bit Mega Drive attempted to make the most of its head start over Nintendo's Super NES, Sega was aware that it needed its own proprietary character to act as both game hero and corporate mascot. With Mario's 16bit debut looming, Sega needed to offer gamers a compelling alternative – and fast. Within all divisions of Sega, word spread that there would be a competition to come up with a game character to rival Mario. Artist Masato Oshima came up with the winning idea – allegedly later confiding to a Sega colleague that he had started off by simply "crossing Felix the Cat with Mickey Mouse" – and Sonic was born.

With a firm gameplay foundation courtesy of Yuji Naka's superlative programming skills, Sonic never



Cloud

Born: 1995

Creator: Kenji Mimurao, SquareSoft

Leading roles: *Final Fantasy VII*

What's the big deal? $4 million in sales

Edge: Where did the idea for Cloud come from?

Kenji Mimurao: For Cloud's mental characteristics, I wanted to create a different main character, one that had never existed in games before. He is an ordinary young man who wants to be strong, but is still vulnerable and definitely not the hero type. As for Cloud's appearance, it was illustrated without anything in mind, so I can't say it came from anywhere in particular.

Edge: How did this idea evolve and change as Cloud developed?

KM: As I worked on the inner aspects of Cloud, the fragile elements of humans became more and more emphasised. The complex in Cloud's mind became far more realistic than originally intended, as becomes evident when he suddenly starts to apologise. Initially, he was not planned to be that weak.

Edge: What do you see as Cloud's defining characteristics?

KM: His complex, his sword, and his Chocobo hairstyle.

Edge: What feelings is he designed to evoke from the player?

KM: Inner pain. The story is essentially about Cloud growing up.

Edge: What's the secret of the character's success?

KM: I believe it's because he has many things that everyone can sympathise with. He

> "He **experiences the path** everybody takes, which is admiration, failure, **parting and growing up**" Kenji Mimurao

experiences the path everybody takes, which is admiration, failure, parting and growing up. I think the players probably see themselves in Cloud.

Edge: Which characters outside of *Final Fantasy* are your favourite, and why?

KM: I like Sonic and Crash as I think they both possess characteristics that can be understood, even without the game part of it. I also like the atmosphere of how they flow within the entire game.

Edge: Are there any common features to the popular characters in major blockbuster games?

KM: I think it's as simple as being cute, cool, and attractive. In a game with a well-written story, it's also very important to be able to sympathise with a character, to relate to its emotions.

Edge: How do present technical limitations restrict the growth or development of game characters?

KM: There are restrictions in many ways. However, I believe that these limitations will be able to be overcome sometime in the future – it's a secret. By the time one development process becomes available or possible, we hope for the next, and the next, and so forth. That is what I've experienced and what I believe leads to the advancement of technology.



HAIR: "Cloud's hair resembles another Square creation – the Chocobo – and the bright colour makes him easy to spot against the rendered *FFVII* backgrounds. The large spikes are also easy to render with limited polygons"

SWORD: "His sword, which he sheathes with a trademark flourish at the end of each battle, is oversized to contrast with his teenage appearance"

looked back. He spearheaded Sega's assault on Nintendo's videogame empire and, for a while, the 16bit console wars of the early '90s became personal, as Sonic and Mario fought for supremacy. But Sonic, like Sega, stumbled badly in the post-16bit world (although *Sonic Adventure* on Dreamcast may change that), although Sega can always point to the 1993 Q Ratings, which indicated that Mario was still ahead of Mickey Mouse, but that Sonic was ahead of them both.

After Sonic, the floodgates opened. A slew of copycat 'mascots with attitude' flooded the console marketplace. From Aero the Acrobat to Zool the Ninja Ant, from Bubsy the Bobcat to Zero the Kamikaze Squirrel, it seemed as if every software company tried to create its own superstar. As graphics technology continued to advance, more and more genres found that including strong, defined characters was not only possible but also a route to greater success. Fighting games never looked back after Capcom scored big with the personality-led *Street Fighter* series. Nintendo successfully introduced characters to the racing genre with the *Mario Kart* series. *Tomb Raider*, led by Lara Croft, broke through to be the biggest hit of the last few years. Blizzard blended realtime strategy gameplay with wonderful touches of personality to great success with *WarCraft*. *Duke Nukem 3D* – although it never boasted the genre's slickest graphics engine or even, ▶



Crash Bandicoot

Born: January 1996

Creator: Jason Rubin (with help from Naughty Dog and Universal Interactive Studios)

Leading roles: *Crash Bandicoot 1, 2* and *3*

What's the big deal? Crash's achievements in the west are impressive, but what elevates him to superstardom is his success in Japan, where he's the most popular western-developed game hero of all time



Edge: Where did the idea for Crash come from?

Jason Rubin: Somewhere early in the process of making the first *Crash* game, I came up with the idea that we should 'hijack' a vaguely familiar animal name and put our character's face on it. So, for example, when we think of a roadrunner, we think of the Warner Bros character, not the scrawny, brownish reality. Likewise, the real Tasmanian devil looks nothing like the 'Taz' we know from cartoons. The images of the roadrunner and Tasmanian devil are forever linked to the characters. So much so that off-hand, most people don't realise that the real creature has nearly no visual correlation. If we have succeeded over the last three years, then all over the planet bandicoots are described as meter-high, orange, spike-haired, tennis shoe- and blue pants-wearing, spinning, huge-smiled, and good-natured.

Edge: How did the original idea evolve to become Crash Bandicoot?

Jason Rubin: The character that ended up being Crash went through four months of intensive design. At one point he looked like a bulldog, at another he walked on all fours. He was blue, he was green, and at one point he had a large squirrel's tail. Crash's personality, on the other hand, has always been the same: quirky, clumsy, fun-loving, and excitable, with a touch of mischief shown through a big, toothy grin.

Edge: What do you see as Crash's defining characteristics?

Jason Rubin: Crash is orange. It is hard to miss that. There are few other orange characters out there. He is shaped like a light bulb, so he can't find many shirts that fit. He often chooses to go topless. He has huge feet, which he covers with tennis shoes, and he wears blue shorts that pass his knees. His face is typical bandicoot – if there is such a thing – with a long nose and pointy ears. The hair on the top of his head he wears in a red spike, which annoys his parents no end. Also, he wears fingerless dark gloves on his large hands, perhaps for use on his Harley. Large, expressive eyes with dark brows and an enormous, dentist-sponsored smile round off his features. But Crash Bandicoot is personality first. When asked about Crash, many children who played the first games will mention the eyebrows he waved at the beginning of the Hog round or his facial emotions, which was a first for a character in a 3D game. Crash is the type of character you want to spend time with.

Edge: What feelings is Crash designed to evoke from the player?

Jason Rubin: We always wanted Crash to be compatible with all ages. As a twenty-something at that time, I didn't want a character that I might describe as 'too cute' if the game wasn't good. At the same time, we wanted a character that would be attractive to an eight-year-old. Crash is both 'cute' in a cartoon character kind of way, as well as 'real' in a more adult way.

Young kids pick up on the slapstick expressions that he makes, the expressive ways in which he dies, and the beating he takes along the way. At that age, attitude matters less than action. Children like to smack Crash around. He is, if you ask them, "funny." But at the same time, Crash shows more adult attitudes as well. He is not so rounded and soft that we find him sickly cute. He acknowledges the player's existence, turning to the screen to chide the player for failing or to wink his excitement, and it is these moments, I believe, when the older player gets attached. He is struggling, as we do.

Edge: How is Crash's appearance and the game world connected?

Jason Rubin: We spent a good deal of time experimenting with the PlayStation game console and the new 3D world in which Crash would be placed before designing the character. The spin attack was mandated by the difficulty of judging in 3D space where exactly the enemy was. A punch, for example, would not work as well. The belly-flop is also an imprecise attack that works well.

> "The **spin attack** was mandated by the difficulty of judging in 3D space where exactly **the enemy was**" — Jason Rubin

He has short legs, so the screen isn't filled with rapidly strobing leg motion, and he has a huge head, so you can see the facial animation that we gave him. If we were going to be the only 3D title to have polygonal facial animation, we wanted to be sure the player saw it. Likewise, his hands are big so that you can see where they are. And in case you might lose the orange hands and orange arms as they cross his orange body, we gave Crash dark gloves so that the player's eyes could track his arm and hand motion. His colour, as well, is mandated by the game. Nothing in the background is allowed to be orange. It is always easy to track him.

Edge: What's the secret of his success?

Jason Rubin: Certainly, the quality of titles, the incredible marketing that Sony has placed behind the character, and the success of the PlayStation have all played large parts in Crash's success. But I believe there is more to Crash's stardom than that. Certainly there have been characters in good games, on good platforms, with massive marketing campaigns that haven't done nearly as well as Crash has.

I'm sure that it is Crash's personality that has propelled him. Why would thousands of Japanese children write in, begging to receive one of only 1,000 Crash dance instructional videos? After buying the game, the marketing is over. So why does the Naughty Dog Website get request after request, from all over the world, for toys and other Crash stuff? Crash is bigger than just a game character. I believe people want more from him.

EYES: "No physical feature is more important in showing emotion than the eyes. Crash's eyes are large and bright and framed by two very large, dark eyebrows. The eyebrows shape the eyes, which shine from beneath like two headlights. Often, Crash will keep his eyes slightly askew, giving him a more unhinged appearance. At other times, he will open them wide in fear or look down in the middle, showing anger"

SMILE/MUZZLE: "Crash was the first 3D videogame character to have different facial expressions for each of his 5,000+ frames of animation. Naughty Dog didn't want to waste this on a face that was too small to see. Crash is two-fifths head and more than one-fifth mouth"

COLOUR: "Orange. Simple, and different. To our knowledge there has never been another significant orange character in the videogame world. Orange suggests excitement, but not anger (as red would). It is, we believe, the perfect colour choice"

Edge: Where did the idea for Sarah come from?
Eric Hammond: Brainstorming, just like all the other characters.
Edge: How did this idea evolve and change as Sarah developed?
EH: Sarah has been pretty consistent throughout the *Virtua Fighter* series. From the fighting game perspective, you can see her strengths come from her leg attacks, and that has evolved in the series. One of the goals for the game was to portray realistic combat while still making a game. And one of the ways to do this is to improve the graphics. As you can see, the Sarah Bryant model has changed dramatically from *Virtua Fighter* to *Virtua Fighter 3*.
Edge: What do you see as her defining characteristics?
Yu Suzuki: She is designed as a fighting machine, brainwashed by some evil organisation.
Edge: What feelings is Sarah designed to evoke from the player?
EH: It's up to the player to decide what feelings Sarah is going to evoke. On one hand, she is a damsel in distress, being a college student brainwashed by a sinister consortium, and her brother Jackie is trying to rescue her. But on the other hand, Sarah can be thought of as the 'bad' girl popular in comic books, who knows how to handle herself and take on all-comers.
Edge: To what extent does Sarah's form follow her function?
YS: Programming enables the character onscreen to show painful expressions when attacked.
Edge: What's the secret of Sarah's success?
YS: A lot depends on the characteristics that she exhibits, but on a practical level, Sarah is a character that can be played by either beginners or experts.

"In creating **successful characters**, there must be something that appeals to the masses, **whether it's looks or** personality" Eric Hammond

Edge: Aside from Sarah, who are your favourite game characters, and why?
EH: One favourite has been Shun Di, who uses a drunken style of Kung Fu. This style of fighting is not only fun to play, but fun to watch as well. Another reason why Shun Di is popular is that Shun was the first truly unorthodox fighter to appear in a fighting game.
Edge: Can any common attributes be identified in all successful characters?
EH: In creating successful characters, there must always be something that appeals to the masses, whether it's looks or personality.
Edge: Do gamers watch the lead character or take on the role of the lead character?
YS: With *Virtua Fighter*, I think players tend to talk about each character's role, technique, and ability, so yes, I believe they take on and identify with the character.
Edge: How does this affect a character's design?
EH: You want to give the character special attributes that will make someone want to be on that character's team – something that will make someone want to be associated with that character. In Sarah's case, she's got an attractive, all-American look and some fierce kicks.
Edge: How do different characters resonate with different audiences?
EH: The beauty of fighting games is that different players have a variety of reasons for choosing a character, either for cool moves or combos, a particular style, or even personality.
Edge: How do today's technical limitations restrict a game character's development?
YS: In regard to home videogame consoles, the facial expressions are limited and therefore influenced by the number of polygons that the machine can cope with.



Sarah Bryant



Born: 1994

Creator: Yu Suzuki, Eric Hammond, Sega's AM2 division

Leading roles: *Virtua Fighter, Virtua Fighter 2* and *3*

What's the big deal? A strong female character in a previously male-dominated genre

HER LONG LEGS: "These can be used to emphasise leg attacks, which are a strong feature in the *Virtua Fighter* games"

CLOTHES: "They allow her to have a sense of style while still being combat-ready. They also possibly serve as a distraction"

HAIRSTYLE: "Sarah's preferred hairstyle, the ponytail, is practical in martial arts, especially since there's no hair pulling in the *Virtua Fighter* series"

EARRINGS: "Her earrings change colours throughout *VF3*, depending on what stage she's in"

◀ arguably, the most compelling gameplay – introduced an engaging personality and grabbed a cult following.

Personalities and characters do two things. First, they provide an extra appealing element to the game. Second, they help attract the attention of people who otherwise may not have picked the game up. "What Lara has managed to do is get into people's offices, get into people's homes, and spread the idea of videogames to an audience that normally would never encounter them," says Core Design's **Jeremy Smith**. The lesson learned? Personalities work. No wonder Nintendo refers to Mario and its pantheon of characters as its "crown jewels." The question, then, is what makes a great videogame character? And how do you go about inventing one?

"Creating your own Sonic or Mario is incredibly difficult," advises **Kelly Flock**, president of Sony's 989 Studios, "and pulling it off is the game industry's home run – it's more than that, it's two grand slams in the same inning."

So what are the rules in creating a successful videogame character? And what makes the difference between a Sonic the Hedgehog and a Jazz Jackrabbit?

Clearly, the number one requirement for any budding character is a great game. Even the most worthy and charming character will sink if the game in which he or she stars is no fun to play. This sounds ▶

Mario



Born: 1981

Creator: Shigeru Miyamoto, Nintendo

Leading roles: *Donkey Kong, Donkey Kong Jr, Mario Bros, Super Mario Bros 1, 2, and 3, Super Mario Land 1 and 2, Dr Mario, Super Mario World, Super Mario Kart, Mario Paint, Super Mario All Stars, Mario and Wario, Yoshi's Safari, Mario's Picross, Mario's Tennis, Super Mario World 2: Yoshi's Island, Mario Clash, Super Mario 64, Mario Kart 64, Yoshi's Story*

What's the big deal? The most popular game character of all time. As of 1995 (Nintendo gave up counting after then), 120 million Mario game cartridges had been sold



Edge: Where did the idea for Mario come from?

Shigeru Miyamoto: Mario first appeared in Nintendo's arcade game, *Donkey Kong*, in 1981. I wanted to make this an unprecedented game in the sense that the player's character could freely move all around the screen. However, at that time, the limited graphics technology available prevented me from depicting the movement of hairs while Mario was jumping. So I made him wear a cap to cover the hairs. Similarly, because the number of dots allotted for the character was limited, I made the big nose and put in the moustache so that people would notice he had a nose. I had him wear dungarees so as to make the movement of his arms stand out.

Edge: So Mario looks the way he does to cope with the limited graphics power of early coin-ops?

SM: Yes. Mario's original character was completed as a result of all of our efforts to cope with limited technology. In other words, Mario was born of rational design in the days of immature technology.

Edge: How has he evolved?

SM: As graphics technologies continue to improve and advance, the way Mario appears in his games is getting closer and closer to the original image I had in mind when he was first created.

Edge: What do you see as his defining characteristics?

SM: He is a clown, a middle-aged man, and full of a sense of justice. As I want him to appear in a variety of games, I refrain from defining his characteristics any more exactly. What I emphasise in my game design is an attempt to evoke the actual past experiences of the players. For example, a desire to realise something exhilarating but impossible in real life (judging from the player's own past experience), or something dreadful to do always lies at the basis of my game designing.

We are designing Mario and all the surrounding characters so that players can feel the joy and tension to run and fly freely in the virtual fantasy world.

Edge: To what extent is Mario defined by the game world in which he lives?

SM: When I start designing a game, I always begin by thinking of what I want players to do and experience. In other words, even when doing a sequel to a popular Mario game, I do not automatically have any specific ideas as to what it should be like. Mario's characteristics are very flexible, and his appearance is suited for very strong actions. This is why he has been able to act in so many different games, even though nearly 20 years have passed and hardware technologies have rapidly evolved since his debut.

Having said that, I don't let Mario appear in just any kind of game. For example, he could

"Mario was born of rational design in the days of immature technology" Shigeru Miyamoto

not show up in *Zelda* games. They are two distinct game worlds. When I think of defining a game world, I like to think of how the air of the game world would feel on the player's skin.

Edge: Aside from Mario, who is your favourite game character, and why?

SM: I attach myself to all the characters I make. If I have to choose one, it should be Donkey Kong, since it was the first game for which I was assigned the responsibility of the major design.

Edge: What do you think the secret behind Mario's phenomenal success is?

SM: I believe the primary reason for his success has been the fact that the games themselves are very fun to play, even though the basic game design has not been changed since the early '80s.

HAT: "Mario's appearance is a result of 1981's rudimentary graphics technology. There simply weren't enough pixels to display him any other way. He wears a hat because his hair wouldn't look realistic"

MOUSTACHE: "Mario's moustache is used to help differentiate his nose and his mouth"

DUNGAREES: "He wears dungarees because his arms needed to be a different colour from his body in order for players to see his arms moving"

THE 'M' ON HIS CAP: "Later, the 'M' was introduced to Mario's cap as an additional means of identification (and to help gamers differentiate between Mario and Wario, who sports a 'W' on his flat cap)"

obvious, but all too many game developers – whether through bad judgment or lack of talent – spend too much time hyping the hero and not enough time polishing the gameplay. This point is not lost on **Shigeru Miyamoto**, creator of Mario and the most plagiarised designer in the industry. "Our games are often imitated," he acknowledges. "Unfortunately, our competitors simply try to imitate the surface and end up with badly balanced games. They never try to understand why and how we have done what we do to achieve each game's content."

Assuming gameplay is in place, what is that 'extra something' that makes some characters stand out from the crowd? "Number one, they've got to be

Edge: Where did the idea for Lara come from?

Toby Gard: I suppose more directly the idea for Lara came from a mixture of 'Indiana Jones' films, Tank Girl, and images of strong women like Neneh Cherry.

Edge: How did this idea evolve and change as Lara developed?

TG: Lara was pretty well-defined from the beginning. Specifically, I wanted her to be a very British autocratic person, thus adding to her unattainable air: measured, cool, self-reliant.

Edge: What do you see as Lara's defining characteristics?

TG: Athletic, attractive and dangerous.

Edge: What feelings is Lara designed to evoke from the player?

TG: Well, it's hard to second-guess what people actually feel when playing Lara, but the idea was that both men and women would emote better with a woman character, for different reasons. Since you are external to Lara, I thought that men would feel that they were guiding this girl through these dangerous situations and might get a feeling of 'protecting' her. I thought that women would relate better with Lara than with the beefy meat-heads that generally are made for such games, simply because her character was not being portrayed in a way that is degrading for women (even if she isn't exactly a feminist icon).

Edge: How is Lara's appearance and the game world connected?

TG: The whole *Tomb Raider* world is utterly dependent on Lara's size and animations. The distances she can jump, reach, run forward, and fall are set variables. In this way, her world is designed for her to exist in. If it were any different, it wouldn't work.

Edge: What's the secret of Lara's success?

TG: It came primarily from the fact that the game was good at the time. All the successful characters have the same thing in common – a good game. You cannot have a good character in a crap game because then everyone would perceive the character as crap, too. It's exactly the same as a character in a film. It's not the costume they are wearing or what their face looks like, it's what they do and how they do it.

Edge: Not counting Lara, who are your favourite game characters, and why?

TG: Mario is a funny little character, but I love him in *Mario 64*. Earthworm Jim is a great

"The idea for Lara came from 'Indiana Jones' films, Tank Girl, and **images of strong women** like Neneh Cherry" Toby Gard

character, and has bags of personality. I like Sonic because he's so fast and weird. I like the lead character from *Nights* because he moved so damn well. And finally, I love Ben from *Full Throttle* for being the coolest game character ever.

Edge: Can any common attributes be identified in all successful characters?

TG: A great game!

Edge: Do you think gamers watch the lead character or actually take on that role?

TG: I think it depends on the game. Generally speaking, if it's thirdperson, then you're watching and controlling a character external to yourself. This allows us to give that character more personality of their own, and the player, suitably distanced, doesn't find it disconcerting when the character does things of its own accord. In a firstperson game you can't do that because you're meant to be taking on that role, and as a player you expect to put all the personality of that character in yourself.

Edge: How does this affect a character's design?

TG: I'm not sure it does, except in so much as you might not make a character like Sonic the





Lara Croft

Born: 1996

Creator: Toby Gard, formerly of Core Design

Leading roles: *Tomb Raider, Tomb Raider Gold, Tomb Raider II, Tomb Raider III*

What's the big deal? Millions of games sold, a movie in the works for 1999, fashion model, sex icon

Hedgehog for a firstperson game. Then again, maybe you would. After all, there are no real rules, are there?

Edge: How do today's technical limitations restrict a game character's development?

TG: To be honest with you, I don't think that we have much in the way of technical limitations when it comes to character development. At this point in time we can pretty much make whatever we like. I think anyone who is griping about limitations at this point is too much of a stickler for realism.

So long as we are still trying to make games rather than lifelike simulations, there's virtually nothing that the current hardware can't handle in making the whole game! Character development has been unhindered since the advent of graphical adventure games.

CHEST: "Lara's chief asset, designed – more than a little obviously – to appeal to the male gamer"

SHADES: "An essential style element, designed to give Ms Croft a cool appearance, as well as toughen her up, Duke Nukem style"

BACKPACK: "The real reason she has a backpack is to hide a join in the 3D mesh of the character, but it obviously suits her 'Indiana Jones' heritage"

likeable," says Naughty Dog's **Jason Rubin**, creator of Crash Bandicoot. "Whether the character is human, animal or alien, if players don't like the character, then they're not going to want to spend time with them. Personally, I like PaRappa, who has a good deal of personality and inspires the player to try to help him."

Another rule of thumb is that game characters need to be consistent. To this end, most game publishers will create and constantly update a database of information about their character. "We keep a very tight rein on Lara," reveals Core Design's Smith. "We have a large bible of information at Core that kind of keeps track of her personality. We know what her favourite colour is, we know what kind of restaurant she'd like to go to and what she'd probably order when she got there, and we know what music she likes." Nintendo has a similar dossier of information on Mario, and Sega has a 'Sonic bible.'

Characters also have to be distinctive. "As the word 'character' implies," Miyamoto says, "it is very important that characters have distinguishable features." In other words, characters have to stand out from the crowd. Witness that Sonic, a hedgehog, is blue. Crash Bandicoot is bright orange. Duke Nukem wears shades. And Lara, well, Lara's standout features are unmistakable.

But as well as being likeable and distinctive, the best characters resonate with players on a deeper ▶



Ryu

Born: 1988

Creator: Manabu Takemura, Capcom

Leading roles: *Street Fighter*, *Street Fighter II*, and every *Street Fighter* game since

What's the big deal? The star and default player in one of the most successful fighting game series ever. Of all the *SF* superstars, Ryu is everyman; well-rounded and efficient



Edge: Where did the idea for Ryu come from?

Manabu Takemura: In the first *Street Fighter* game, Ryu was the only playable character, so we wanted someone that many people would identify with. When we were creating *Street Fighter II*, we had to come up with eight playable characters. Ryu and Ken were chosen because they were in the first game, and they match up well as the main character and the player-two character. Ryu symbolises a Japanese martial artist (Budoka), while Ken is a typical young person who likes western culture and wants to be like an American.

Edge: How did this idea evolve and change as Ryu developed?

MT: In *SFI*, Ryu was thinner and didn't look so strong. I made him more muscular, to look like a real martial artist.

Edge: What do you see as Ryu's defining characteristics?

MT: His white karate uniform. Players will know he is a karate master at first sight.

Edge: What feelings is Ryu designed to evoke from the player?

MT: It's up to the gamer what they feel. We don't expect particular feelings from them. But he has definitely become an essential part of the *Street Fighter* world. If we were to make a *Street Fighter* game without Ryu, quite a few players would say 'no way.'

Edge: What's the secret of his success?

MT: He is successful because *Street Fighter II* was a big hit, and Ryu represented the game.

Edge: Who are your other favourite game characters, and why?

MT: Chun Li, Guile, Megaman. I like a character that is recognisably beautiful, tough or simple.

Edge: Can any common attributes be identified in all successful game characters?

> "I think **the best character** is the one that is fun to play, or that players feel **compelled to play with**" Manabu Takemura

MT: Being in a game that makes a big hit and taking a great part in making that game a hit. I think the best character is the one that is fun to play, or that players feel compelled to play with. I try to keep these goals in my mind while designing a character.

Edge: How do different characters resonate with different audiences?

MT: All gameplayers are not the same. This is why we created *Street Fighter II* with eight different player characters.

Edge: How do today's technical limitations restrict a character's development?

MT: There are no technical limitations beyond our imagination. There are many things that I can think of and that couldn't be realised. But I don't think it's a limitation – it's a challenge. And I'm very happy when I try to overcome these difficulties.

HAIR BAND: "It shows his fighting spirit. Japanese people sometimes wear 'hachimaki' when they are facing a hardship or are determined to do something difficult"

BLACK BELT: "Ryu is a master of karate. The sharpness of his moves (kicks, punches, shoryuken, hadoken) is also shown by the movement of the belt"

TORN KARATE UNIFORM: "At first sight, you can guess how hard his training was. He experienced quite a few fights before his uniform was torn"

BARE FEET: "He is a devoted fighter and does not care that he fights barefoot. As you know, karate is an indoor sport. But devoted karate fighters train themselves in such severe conditions as fighting barefoot outdoors or swimming in winter"

level. "The player needs to understand the motives and personality of a character. Otherwise it's difficult for there to be a connection," says 3D Realms' **Scott Miller**, the creator of Duke Nukem. "And we believe that character speech is a key way of communicating – literally – a character's personality." The belief in the need for the player to understand the game character is echoed by Naughty Dog's Rubin. "The reason why I enjoy many of the characters from the *Tekken* series is because the authors seem to have given them enough inner conflict to make them less shallow than characters from other fighting games," he says. **Kenji Mimurao** of SquareSoft, the creator of *Final Fantasy*'s Cloud, concurs: "I think [success can be] as simple as being cute, cool, and attractive… [but] it's also very important to be able to sympathise with a character, to relate to its emotions."

This raises an interesting possibility. Perhaps it's not too far-fetched to suggest that the very best characters, rather than offering an escape from our own lives, in fact work because on a basic level, they resonate with our notion of ourselves. "If millions of children and adults melded with Mario, it may not be simply a matter of our shortening attention spans, our craving for novelty, or our susceptibility to expensive ad campaigns," wrote **Scott Rosenberg** in a 1991 issue of the *San Francisco Examiner's Image* magazine. "It may be that in Mario's fate – stuck in a world not of his



Sonic the Hedgehog

Edge: Where did the idea for Sonic come from?
Yuji Naka: At first, we wanted to make an entire game running full speed, which we had never seen before, and the character was born from there.

> "Sonic is not only **an honoured character**, but is seen as a reliable **friend to young people"** Yuji Naka



Edge: How did this idea evolve as Sonic developed?
YN: We managed to stir feelings with his speed. We improved his design to be able to run on a round-shaped ground as well as straight and flat ones. Furthermore, we succeeded in making him run on a loop. In order not to lose his speed and to attack, we made him curl himself up like a ball when he jumped.
Edge: What do you see as Sonic's defining characteristics?
YN: He's cool and the fastest hedgehog in the world.
Edge: What feelings is Sonic designed to evoke from the player?
YN: He will make action as soon as he thinks of it. He can't bear staying calm.
Edge: To what extent does Sonic's form follow his function?
YN: He can run fast. He becomes irritated when the player leaves him alone. He can attack his enemies by rolling in high-speed because curling his own body is his offensive preparation.
Edge: What's the secret of Sonic's success?
YN: He is not only an honoured character, but is seen as a reliable friend to young people.

HEAD SHAPE: "His acute-shaped head symbolises his speed"

SPIKES: "He's the anti-Mario: Mario is rounded, whereas Sonic is spiked and therefore tougher-looking [a key aspect of the Mega Drive ad campaigns in the US]"

SHOES: "Sonic has to run fast, so he has running shoes"

COLOUR: "Sonic turned blue when he broke the sound barrier"

Born: 1991

Creator: Yuji Naka, Sega

Leading roles: *Sonic the Hedgehog, Sonic the Hedgehog 2, Sonic CD, Dr Robotnik's Mean Bean Machine, Sonic the Hedgehog 3, Sonic and Knuckles, Sonic Drift, Sonic Chaos, Sonic the Hedgehog Triple Trouble, Sonic Blast, Sonic Drift 2, Tails Sky Patrol, Tails Adventure, Sonic Labyrinth, Sonic 3D Blast, Sonic Jam, Sonic Spinball, Knuckles Chaotix, SegaSonic Arcade, Sonic the Fighters, Sonic R, Sonic Adventure*

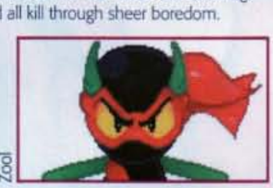
What's the big deal? Gave Mario a run for his money and was largely responsible for the success of the Mega Drive

Worst failures

Of course, not every character finds its audience – in fact, some would have trouble even finding their own, um, noses with both hands. These few stunning examples of total personality vacuums could all kill through sheer boredom.



Bubsy



Zool



Bug



Mr Nutz

own choosing, charged with a nearly impossible mission, doomed to perish sooner or later, yet free while he lives to grow, learn, slay demons, and stop to smell the Fire Flowers – people are catching a crude, bright, hypnotic reflection of their own lives."

As new graphics technologies are applied to game characters, the relationship between player and character will become more complex. At the moment, gamers cannot have conversations with game heroes, and interaction is limited to simply guiding them around physical terrain and getting them to shoot enemies or pick up objects. But as technologies like speech recognition, superior artificial intelligence, and even artificial life technology are used in creating these characters, the relationship will deepen.

This is an ongoing evolution, and the designers of today enjoy considerably more artistic freedom and a broader palette than in the past. "There is much more freedom today than there was during the 16bit era," says Rubin. "Back then, you only had 16 colours and often just a 32x32 pixel sprite to create the character image and personality." Nowadays, designers can let their imaginations run a little wilder, and technology is enabling designers to realise their visions more fully. "People may think that such characters as Mario and Link have been improved significantly thanks to the state-of-the-art graphics technology of N64," ▶



Duke Nukem

Born: 1990

Creator: Scott Miller and Todd Replogle, 3D Realms

Leading roles: *Duke Nukem 1* and *2*, *Duke Nukem 3D*, *Duke Nukem Forever*

What's the big deal? Duke proved that firstperson 3D shooters and personality can mix. And since he broke the mould, no one's done it better

Edge: Where did the idea for Duke come from, and how has he evolved and changed since?

Scott Miller: Duke was originally created by myself and Todd Replogle in 1990, and the first *Duke Nukem* [a side-scrolling shooter in EGA] was released as shareware in mid-1991. The game was the biggest shareware success until *Wolfenstein 3D*'s release a year later. *Duke Nukem 2* came out late in 1993 as another side-scroller, and with VGA graphics. Almost immediately after that game's release, Todd began *Duke Nukem 3D* (a name I selected, since it was really the third in the series) early in 1994 using our Build engine, which was still a work in progress, and without many of the features it later came to have. Duke was originally conceived as a brash, never-say-die action hero for our modern times. But it wasn't until *Duke Nukem 3D* that we were able to infuse him with attitude and ego, through his voice (mostly managed by George Broussard), through the game environments (including strip clubs), and by adding his shades (my idea).

> "He's **patriotic, a chauvinist**, and shoots first. Duke doesn't negotiate, **except with big guns**"
>
> Scott Miller



Edge: What do you see as Duke's defining characteristics?

SM: Duke is a modern-day John Wayne. He's patriotic, a chauvinist, and shoots first. Duke doesn't negotiate, except with big guns. He's short on words but long on action.

Edge: What feelings is Duke designed to evoke?

SM: I don't think we've ever thought about it in that way. When you play a *Duke Nukem* game, it's a chance to be someone who's fearless and physically equipped to handle any conflict. Duke's a man's man, and for most of us, it's a fantasy to play a hero like that.

Edge: How is Duke's appearance and the game world connected?

SM: To a big extent – especially in the coming *Duke Nukem Forever* – the environments are designed to take advantage of Duke's attributes. In *Duke Nukem 3D*, LA was the perfect backdrop for Duke, and in the next game, Las Vegas provides another playground for his adventure, with casinos, strip clubs, and plenty of material for gags.

Edge: What's the secret of Duke's success?

SM: Duke is maybe the first game that captures the essence and attitude of an Arnold Schwarzenegger-style action movie.

SHADES: "Duke's shades are undoubtedly his key signature item. This idea initially met a little resistance internally because the conventional wisdom was that players needed to see a character's eyes in order to connect better with that character. But often rules must be broken, and this was certainly a case example"

CLOTHES: "Duke doesn't wear armour or protective clothing (at least in the pictures of him – he does find protection in the games). This emphasises that Duke is so confident that he doesn't bother with protection of this sort. Duke's skimpy, tight tank top is all he needs. In *Duke Nukem Forever* I'd like to see all armour and shielding dropped from the game to further emphasise his confidence, but I'm meeting internal resistance because conventional wisdom says all shooters must have armour for the player to find. Conventional wisdom, unfortunately, leads to clones and been-there-done-thats"

BELT: "The nuclear belt buckle is an important part of his appearance, though I'm not sure what it represents for the character, other than reinforcing his name"

HAIR: "Duke's good looks and crew-cut blonde hair are important in pushing the fantasy that Duke is a man among men, and quite the womaniser, too"

MOUTH: "Duke's voice is also critically important. We selected a voice that was deep, gruff, and confident – a cross between John Wayne and Clint Eastwood"

argues Shigeru Miyamoto, "but the fact is that they are simply approaching my original concepts."

The creators of some of gaming's most successful characters talk here about their experiences, and from their comments **Edge** ultimately concludes that character creation is no science. What links them together first and foremost, though, is great gameplay, but also a sense of wholeness and truth. All these characters are loved – both by their creators and gamers. After all, more than 500,000 years have been clocked up by gamers around the world in the company of Mario. He must be doing something right.

TESTSCREEN

The definitive monthly assessment of the world's latest videogames

Stirring up the gene pool

One day, all games will be cut of absurdly similar cloth. There may currently be many subdivisions of each genre, but the number is ultimately finite.

Gran Turismo pioneered production cars boasting realistic physics and environments within a traditional game structure, and, as processing power increases with each generation of hardware, fitting all of the mathematical models required to accurately replicate a moving vehicle will become just another step of the development process, bringing new racing games closer in line with what the technicians at Polyphony Digital Inc. have already achieved with *GT*.

This scenario can be extended across all genres, of course, issuing a concern that the market will one day be filled with copycat titles offering little in terms of innovative gameplay over their nearest rival. It's already happening to a degree: walk into any videogame retailer and you'll face countless substandard clones rushed on to the shelves after pitifully brief development cycles by publishers eager to cash in on the popularity of established successes. The biggest concern here is the increasing number of also-ran type products that, while above average, fail to introduce new elements to a particular genre.

Which is why, in addition to their respective gameplay merits, this month's *Glover* (p89) and *Silicon Valley* (p90), with their alternative approaches to concepts that have been attempted in the past, represent a much-needed breath of fresh air. Similarly, although hardly revolutionary, this is something LucasArts' *Grim Fandango* also achieves.

Rather than radical new concepts, though, it may be more realistic to expect the future of videogames to take on an adaptive approach, mixing varieties of genres to create successful hybrids. It's an attitude certain developers seem keen to adopt, and with *GTA* and now *Body Harvest* (p86), DMA Design is rapidly establishing itself as a significant player within this domain. Neither title can claim to have initiated a new genre in the way *Populous* did, for example, but by taking elements from a variety of existing categories and fusing them into carefully balanced, highly playable products, the Scottish development outfit has offered a glimpse of the way games may have to develop in forthcoming years.

Sure, advances in areas such as AI (which has the potential to bring aspects such as emotion into videogames) offer myriad opportunities for talented developers to create gaming experiences unlike any that have gone before them. Until then, well, don't be too surprised to come across *Gran Fandango* at your local importer in the not-too-distant future.







The success of *GT* (left) has instigated a wave of me-too racers, heightening the impact of alternative concepts such as *Glover* (centre). *Body Harvest* (right) mixes the established and the new for success

Videogames on the **Edge**

This month **Edge**'s failing eyesight is largely thanks to...



Half-Life
(PC) Cendant
A strong plot and stunning visuals. Reviewed next month, Valve's firstperson shooter is looking increasingly like the PC's answer to *GoldenEye*.



1080° Snowboarding
(N64) Nintendo
NCL's great snowboarding sim finally hits the UK, with a full-screen display and slight speed reduction. But you've probably already got the Aussie PAL import.



TOCA 2
(PS) Codemasters
Demo versions of this highly promising sequel have been clogging up **Edge**'s debug PlayStations on a frighteningly regular basis. Review next issue...



Medievil
(PS) SCEE
Okay, it's not *Zelda*, but Sony Europe's arcade adventure is a well-crafted and attractive – if a little easy – take on the current fad for RPG-style games

Index









BODY HARVEST



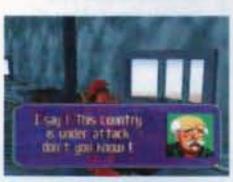




You'll soon become familiar with the basic varieties of alien enemy – although occasionally something rather more substantial than usual enters the mix...



Military vehicles, such as this beefy tank, have their own weaponry. The turret obviously moves independently, allowing you to easily pick off foes





Body Harvest isn't ocean-deep, but there's a certain amount of character interaction (top). Constant use of the map (above) is absolutely essential

As part of the Nintendo 64 'Dream Team', DMA Design originally presented *Body Harvest* to Nintendo and received an interesting response. 'Yes,' the Japanese creatives reputedly responded, 'we love what you have, but how about adding in some RPG-style elements to complement the full-on action?' DMA evidently agreed with the merits of such a treatment, and the finished game – categorisable only by the term 'action adventure' – is a triumph of cooperative design (although the lion's share of the credit should unreservedly go to DMA).

Spread over five levels, each set in a different time period (Greece, 1914; Java, 1941; America, 1966; Siberia, 1991; Comet, 2016), *Body Harvest* has 'B movie' written all over it – but that's not a criticism. Quite the opposite, in fact, because the aliens-against-the-earth premise provides a spectacular foundation upon which DMA has fashioned a game with atmosphere, tension and excitement by the lorryload.

The ultimate objective on each level is destruction: a series of alien guardians/generators must be eliminated before progress can be made, while along the way the player must endeavour to protect substantial human life from enemy threat (failure to do so means game over).

But although the game presents a fairly straightforward save-the-day scenario, you must employ strategy and consideration rather than simply diving in to blow the living daylights out of the invading predators.

DMA claims that each map represents nearly four square game miles, and, rather than giving players immediate access to the entire area from the outset, exploring further afield often requires players to think on their feet. (On its simplest level, this could mean locating a stash of TNT which can then be used to blow away an expanse of rock blocking your progress through a canyon.) While the puzzles never become

Format: **Nintendo 64**

Publisher: **Gremlin Int.**

Developer: **DMA Design**

Price: **£40**

Release: **November**



The joypad's R button pulls up an over-the-shoulder view, which in turn allows you to fine-tune your targetting system





Ironically, the only level set in the future comes as something of an anticlimax after the four terrifically atmospheric preceding time zones







With over 60 vehicle types, *Body Harvest* is an enormous game

outrageously complex (and there's usually a friendly NPC on hand to offer pointers anyway), their presence ensures that *Body Harvest* sits a notch or two above traditional action titles.

The way *Body Harvest* gradually escalates the action is also laudable. You begin the game on foot, defended from alien attacks by a mere suit of armour. But it's not long before a mode of transport is encountered – although you'll curse early-twentieth-century technology as you potter around the first level in lumbering trucks and cars more suited to Laurel and Hardy than a superhero charged with the task of saving the world.

A great deal of the game's appeal lies in the variety of vehicles it offers. Like *Grand Theft Auto* before it, *Body Harvest* goes overboard in attempting to deliver a digital playroom for grown-ups. Motorcycles and jeeps can be jumped over ravines, Evel Knievel style, while fully functioning fire engines can be used to extinguish flame-ravaged village buildings, and aircraft and water-based vehicles also become available as play progresses. While such an extravagant number of vehicles might lead you to expect a similar amount of control methods, though, this does not prove to be the case: each mode of transport is controlled in essentially the same manner (accelerate, brake, sharp turn, etc), which may come as something of a disappointment to some. Accessibility may be a key element of N64 gaming, but the 'dumbed-down' nature of the game's aircraft behaviour, for example, is occasionally bewildering.

Motorcycles and jeeps can be jumped over ravines, Evel Knievel style, while fully functioning **fire engines** can be used to extinguish **flame-ravaged village buildings**



As the game progresses, travelling on foot is asking for trouble

Graphically, *Body Harvest* isn't the strongest advertisement for the N64, with fogging that becomes especially evident (and annoying) when you take to the air, but the game does maintain a sense of atmosphere throughout, with subtle textures and convincing weather effects serving to create a memorable game world.

So, was *Body Harvest* worth the three-year wait? Yes. Gameplay is its watchword, and it further underlines DMA's stature as one of the UK's finest developers.

Edge rating:

Eight out of ten

GRIM FANDANGO

Format: **PC**

Publisher: **LucasArts**

Developer: **In-house**

Price: **£40**

Release: **Out now**







A deliciously subtle gag (top) – the kind of visual humour that games so rarely offer. Manny in full 'reaping' gear (above). He changes his outfit at the start of every episode









Few games offer such varied, vibrant characters. While many of the cast adhere to stereotypes, the personality they exude is remarkable, while the artwork is stunning (above and right)

In terms of aesthetic appeal, LucasArts' adventure is a masterpiece. Its stylised, prerendered 3D locales and polygon-based cast are unique, serving up a distinct South and Central American flavour. Its seamless integration of cut-scenes and actual play create a genuine cinematic feel, richly rewarding successful participants.

Grim Fandango's true strength, however, is the sheer depth of its characterisation, its quirky yet accessible storyline, irresistible black humour, and the high standard of dialogue. Based in the Netherworld, it tells the tale of Manuel Calavera, a 'travel guide' for the recently deceased and purveyor of trips to the Underworld – the final resting place for souls. When Calavera discovers a plot to deny saintly individuals their 'deathright' of safe passage to their deserved eternity, he becomes embroiled in a so-called Global Conspiracy of Death.

Surprisingly, perhaps, *Grim Fandango* sees LucasArts discard its signature point-and-click interface, favouring 'genuine' control via a joypad or keyboard. In order to avoid moments of *Resident Evil*-style madness – where players repeatedly walk the protagonist up to onscreen furniture while pressing the action button hoping to find objects – the intelligently animated Manny turns his head to face (and thus highlight) potentially useful items. It's hard to say whether or not this more immediate approach is preferable to a mouse-based system, but it serves to illustrate that the gap between modern-day graphic adventures and, say, Capcom's two tales of Raccoon City isn't as immense as might be at first imagined.

Ironically, it's the puzzles in *Grim Fandango* – the bread and butter of its gameplay – that represent its least progressive aspect. In fact, while they offer the intended challenge, frustrating and fascinating in equal measure, they are essentially no more sophisticated than those of *Monkey Island* or even the ancient *Maniac Mansion*. But as this is testament to the quality of LucasArts' early adventures, it would seem spurious to criticise the game on this score.

Ultimately, *Grim Fandango*'s largest contribution to this increasingly 'unfashionable' genre is the story it relates and the imagination with which it does so. As such, it rates as one of the most complete, expertly produced and engrossing graphic adventures ever conceived.

Edge rating:

Nine out of ten

GLOVER









Although technically average, *Glover*'s gameplay differentiates it from the vast majority of titles currently on the market. It also represents a reasonable challenge

The idea of designing a game based on controlling a magician's glove around a perilous, puzzle-filled land, combining bizarre inhabitants and treacherous moving platforms would – for some people – necessitate mild mind-altering-substance support. Yet, despite the efforts of several publishers, the videogames world remains one of the few markets still capable of embracing off-the-wall concepts.

The novelty, however, won't be found in the plot: after mixing one too many magical ingredients into his melting pot, a cheerful wizard suffers a career-threatening explosive snag, which sees him plunging to the depths of his castle. As Glover, the wizard's right-hand glove (separated from his body by the unexpected blast), you're left with the task of recovering the kingdom's crystals now dispersed amidst the game's differing worlds, as well as battling Cross-Stitch, the wizard's evil left-hand mitten.

By introducing a glove as the game's protagonist, Interactive Studios has created a truly versatile character. Indeed, while Spyro runs around headbutting enemies, jumping and gliding from one platform to the next, Glover can walk around on two digits, hold on to ledges or change effortlessly into a fist with which to whack objects, enemies and activate switches. Furthermore, he can grab, bounce, throw and slap a ball (the ball's status can be changed to help complete the puzzles, transforming into a cannonball or even a beach ball) – find the right potion and he can even fly. Naturally, mastering all of his repertoire is crucial to negotiating the levels and defeating the various bosses.

It's a shame, then, that the control system is disappointing. Negotiating the hazardous environments can occasionally become a clumsy and unresponsive affair. The camera can also complicate matters, although a quick tap of the C buttons should avoid any polygonal obstruction.

It isn't the most original game around either. The overall concept may be ingenious, but the hub configuration of the levels has been seen before (*Diddy Kong Racing*, for example) and certain *Mario*-esque elements make casual cameo appearances.

However, *Glover* does offer regular surprises (the bonus levels are particularly entertaining), and ultimately none of the above criticisms prove substantial enough to spoil what remains a refreshingly different title.

Edge rating:

Seven out of ten

Format: **Nintendo 64**

Publisher: **Hasbro**

Developer: **Interactive Studios**

Price: **£40**

Release: **Out now**







One of *Glover*'s many pleasing touches: roll your ball in the snow and its radius gradually increases as it picks up fresh flakes, seriously affecting its handling

SPACESTATION SILICON VALLEY

Format: **Nintendo 64**

Publisher: **Take 2 Interactive**

Developer: **DMA Design**

Price: **£40**

Release: **Out now**





A helpful briefing screen reveals the original mission objectives (top). Expect to get a thorough lowdown on any new specimen whose body you possess (above)







Each of the 40-plus creatures available has its own particular attributes – it's up to you to exploit them in order to successfully overcome the level's puzzles



Frustratingly, while able to zoom to a *Mario*-style near-camera, it's not possible to freely look around the level (top)

If the amount of time a game spent in development dictated its quality on release, *Spacestation Silicon Valley* would be one of the finest games of recent times. But as anyone unfortunate enough to have actually paid for a copy of *Heart of Darkness* will testify, time and effort expended on a piece of software guarantees nothing, except an inflated sense of public expectation and a huge amount of hype to live up to.

Fortunately, *Silicon Valley* is one of the rare breed of much-delayed titles which doesn't disappoint when it finally sees the light of day. DMA Design has made excellent use of the three years since the project's inception, and has come up with the first game to offer any radically different concepts to the 3D platform game genre since it was first defined by *Super Mario 64* back in 1996.

Silicon Valley stands out from the crowd because it doesn't try to ape or better *Mario*. Graphically, it isn't up to the standard of a Nintendo in-house release (although there is a pleasing lack of fogging), but to judge the game purely on technical merits is to miss the point. *Silicon Valley* is a cleverly designed, original and *enjoyable* puzzle game which, while superficially similar to the current glut of *Mario* clones, offers far more variety in terms of gameplay than the likes of *Banjo-Kazooie*.

The object of the game is to complete a set of mission objectives by killing and 'possessing' a series of more than 40 bizarre robotic animals. Each animal has two unique abilities which determine whether it will be able to complete a particular task. The complex nature of some of the tasks means that the player is forced to switch between several animals to complete any of the game's 31 levels. For example, an animal which can't jump will have to kill an animal which can in order to hop up onto a ledge. If it's a weak animal, it will have to provoke two stronger animals into fighting each other to kill one of them.

The game requires as much lateral thinking as it does joystick skill, and the humour and ingenuity put into creating the puzzles makes it a joy to play, even when the occasionally unfriendly camera system thwarts your best attempts to make progress.

If *Silicon Valley* manages to spark a return to traditional gameplay values, then **Edge** welcomes it with open arms.

Edge rating:

Eight out of ten



While unlikely to challenge NCL's or Rare's projects for the year's best visuals, *Silicon Valley*'s graphics cannot be criticised for lacking colour

MONACO GRAND PRIX RACING SIMULATION 2









The cars are fictitious, but the circuits are based on their real counterparts





The replay mode (left) enables you to watch your race from numerous angles. Without the driving aids it's all too easy to over-accelerate (right)

Format: **PC**

Publisher: **UbiSoft**

Developer: **In-house**

Price: **£40**

Release: **Out now**

Formula One racing games aficionados will undoubtedly frown at *Monaco Grand Prix Simulation 2*'s loss of the FIA licence (the sport's regulatory body). Yet UbiSoft has gone to great lengths to compensate potential drivers: in addition to the normal practice, single race and championship there are also ten 'scenario' options as well as an interesting opportunity to race a selection of 1950's F1 vehicles around a variety of tracks in the game's retro mode. Nevertheless, while *F-1 World Grand Prix* boasts Jacques Villeneuve and Michael Schumacher, for example, the sequel to last year's popular *F1 Grand Prix Simulation* has to make do with J Vouellete and M Schmidtke.

Furthermore, none of the tracks (other than the Principality of Monte Carlo, naturally) are referred to by their proper titles. More importantly, none of the cars sport their team's authentic livery. All is not lost, however, and spending a considerable amount of time on the game's track, team and driver editor should at least ensure the starting grid imitates its real-life counterpart.

With the game's cosmetic aspect taken care of, then, it's reassuring to see that the impressive attention to detail first demonstrated by its predecessor is also present in this latest incarnation. It appears that every facet of taking part in F1 has been realistically recreated, from the 107 per cent qualifying rule and pit lane speed limiter, to the ability to tweak every handling aspect of the cars to extract more power from the already strained engine. Of course, in order to accommodate novices all of these aspects, along with the different levels of difficulty, are selectable. But out on the track, winning a race on the highest setting without the assistance of driving aids is unlikely without an impressive catalogue of previous non-finishes.

Yet, given the developer's dedication it's disappointing that all of the cars emit the same engine sound, particularly when this has not been overlooked in the retro option.

Furthermore, the level of graphical detail, so highly evident throughout the majority of the game, fails to extend to the inclusion of polygonal arms within the cockpit view – the resulting mechanical display is oddly impersonal, failing to draw players in as much as *GP Legends* does, with its in-car perspective. And the chase cam is not an option as vehicles appear to be floating several millimetres above the tarmac (a criticism also levelled at *F1 Grand Prix Simulation*), unsettling the game's otherwise highly realistic nature.

Despite these niggles, however, *Monaco Grand Prix Simulation 2* proves one of the most competent and technical recreations of modern F1 currently available.

Edge rating:

Seven out of ten







The retro option (top, centre), is a neat – if a little limited – addition. Given the attention to detail elsewhere, it's a shame the in-car view doesn't feature arms

RIVERWORLD

Format: **PC**

Publisher: **Cryo Interactive**

Developer: **In-house**

Price: **£40**

Release: **Out now**



The 3D engine ensures battles are spectacular. Whole armies run riot







There are 11 technological ages to progress through, from the Wood Age right through to the Stellar Age, when immortality becomes available







You can switch to a less confusing overhead display (above), but Cryo should have ironed out the problems with the 3D viewpoint rather than offer this alternative

Although French developer Cryo's past efforts have been a little hit and miss, the long-delayed *Riverworld* attempts to combine the sort of empire-building subtleties associated with *Civilization* or *Settlers* with accelerator-driven 3D visuals and realtime action. Even more challenging, though, the game is based on the 'Riverworld' books, penned by respected author Philip Jose Farmer.

As in the novel the game focuses on 19th Century figure Richard Burton, resurrected by aliens alongside leading figures of authority such as Attila the Hun and Albert Einstein. Where the game deviates from the original plots is that, rather than use Riverworld as the backdrop for an adventure, it challenges you to use Burton to lead the primitive locals through 11 technological ages. From the Wood Age through to the Stellar Age, the key to advancement is – as usual – sensible use of resources and the discovery of new inventions.

As well as creating new buildings and laboratories to expand the population, the explorers seek out other key characters, while military men handle the creation of barricades, watchtowers, and – eventually – more ambitious weapons of war. But it eventually becomes necessary to face the opposing tribes.

What makes the game simultaneously innovative but off-putting, though, is the fact that this formula has been built around a 3D engine and point-and-click system. A thirdperson viewpoint is employed for the most part, with the ability to zoom right out or even switch to a firstperson view of any character. And as intuitive as the menus are, the actual process of selecting and controlling characters is anything but straightforward, particularly when directing a group. The viewpoint may give the game a graphical edge over its peers, but the control system certainly suffers.

Thorough playtesting ought to have highlighted these shortcomings, as well as graphical glitches which include tears in the 3D display.

There's much to admire here, though. *Riverworld* is innovative, it looks and feels very different from any other PC title, and the combination of linear technological development with freeform control of Burton's tribe strikes a good balance. But more time should have been invested in the method of control. Without a clear way to view and control the action, it is a daunting proposition.

Edge rating:

Six out of ten

ABE'S EXODDUS









Format: **PlayStation**

Publisher: **GT Interactive**

Developer: **Oddworld Inhabitants**

Price: **£40**

Release: **Out now**



***Exoddus* makes the most of its 2D visuals with some lavishly painted, hugely atmospheric backgrounds**



Abe's new-found ability to possess his own farts provides an interesting gameplay diversion. And apparently the ladies find this endearing...







Those familiar with the first Oddworld title will find the creatures and gloomy level design depressingly familiar. Clever use of background lighting, though

Abe's Oddysee was one of the better platformers to appear on today's hardware; sloping in far behind *Super Mario 64* and *Castlevania*, but teaching *Crash Bandicoot* et al a thing or two about gameplay. Its combination of well-worn 2D design values with the thoughtful implementation of language, and a dark adult humour created a truly interesting game; a game which – like *PaRappa the Rappa* – managed to bridge the gender divide and appeal to female players. A notable achievement.

This time around, the designers have given Abe more to say – perhaps in a nod to that female contingent, impressed by Abe's ability to communicate, rather than exterminate. They've also fleshed out meatier roles for the Mudokon slaves he has to rescue, and added to the menagerie of snarling baddies. However, by creating a sequel, they have perhaps soiled what made *Abe's Oddysee* so likeable in the first place: the fact that there was nothing else like it around.

For the less cynical gamer, though, there are many pleasures to be found here. Abe is an incredibly flexible character, with a huge range of abilities – talking, possessing other creatures, becoming invisible – all of which are put to good use in the game. What's also interesting is the way the designers play on these abilities: it's rare that you only use a skill once – you often have to figure out how to re-use it in lateral, unrelated ways, which is a sure sign of sound game design.

Elsewhere, the eight individual stages are expertly crafted, and that familiar black humour has returned, bolstered by the occasional fart joke. The plot (Abe stops evil Glukkons from exploiting his fellow Mudokons), overall visual themes and general gameplay devices, however, remain more or less identical to the first title. *Exoddus* is a polished sequel yet Oddworld should perhaps have considered what LucasArts did with *Monkey Island 2*, and turned the whole story upside down.

Edge rating:

Seven out of ten

PROFILE: Lionhead Satellites, a leg-up for the undernourished developer



Lionhead co-founders Steve Jackson and Mark Webley

Peter Molyneux's Lionhead co-founders, **Steve Jackson** and **Mark Webley**, are initiating Lionhead Satellites, a breakthrough scheme to aid new developers. **Edge** slipped away from Molyneux's exhaustive (and exhausting) *Black and White* demonstration to discover more...

Edge: How did the Satellite scheme come about?

Steve Jackson: It was almost by accident, really. When we first started Lionhead, there were a number of groups that came along to us – small developers, teams of two or three people – and they thought they could bring ideas along and Lionhead would suddenly create a team to develop their game. They learned that it wasn't like that. A few were very talented, and we thought it was a shame just to let them go. And that was the beginning of the whole scheme.

Mark Webley: What we did when we put Lionhead together was employ people like Andy Robson and Russell Shaw, people we knew we'd need if we were going to make *Black and White* really good. We got a full sound studio and a full testing department, which is quite a lot if you're only going to be producing one game every two years. So Steve came up with this idea to utilise all the extra resources that we needed and do something for these start-up groups as well.

Edge: So it all comes down to a financial saving for Lionhead...

SJ: That's part of it. But it was really a basis for forming a symbiotic relationship between Lionhead and these outside developers. It is tough to get publishing contracts these days, and Lionhead does attract attention. We did a lot of the vetting for the publishers, so they knew they were getting top quality. From our point of view, we were using spare resources, and building up the company.

Edge: Will the Satellites publish their games as Lionhead titles?

SJ: They will have their own logo as well...

MW: They'll be their own company. We're trying to build up a Lionhead label similar to the record industry. 30 or 40 of these teams must have approached us, and we've chosen two of them. Along with some of the skills we can give them, we're going to make some excellent games.

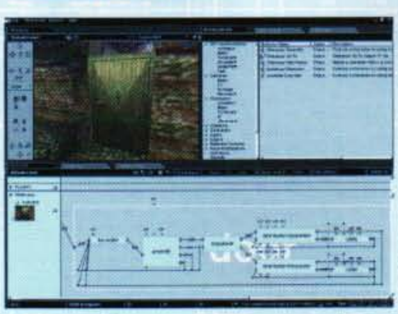
Edge: So what do you offer the chosen few, once the process begins?

SJ: The overall thing they get is a certain security in being part of Lionhead, like members of staff, but they're entirely independent.

MW: Although it's a business relationship, it's really a lot closer than that. One important thing we do is help them with funding, and that can take about three or four months, just to get started. We allow them to get going and do what they do best, which is develop games. **E**

PRODUCT FOCUS: *NeMo Dev*, Virtools' cure-all solution for game developers





Visit www.nemosoftware.com for more information on *NeMo Dev* and Virtools

French company Virtools has launched a new package aimed squarely at making game design easier and quicker for developers. The platform, entitled *NeMo Dev* (left), enables designers to swiftly build realtime 3D content, along with all of the necessary components of interactivity (behaviours, skills, etc). The results can be taken all the way to finished-game status using just *NeMo Dev*, or alternatively developers can import their own elements, such as custom 3D engines, to create hybrid titles.

Frederic Raynal, creative director at the Sega-owned French developer No Cliché, is one devotee of the system, which he currently uses to test ideas for upcoming projects. "From my point of view, the main attraction is the speed with which you can create something playable," he explains. "A few years ago, it was possible to test an idea in one or two days. Nowadays, each time you want to start a project, even for a simple test, you need hours just to set up the core engine. With *NeMo*, everything is already there. After just a few clicks you can see something running. Then you can focus on the gameplay."

The demo **Edge** witnessed certainly bore out this claim. The *NeMo* environment is super-friendly, allowing game logic to be pieced together in a very graphical fashion, negating the need to get your hands dirty with reams of instructional data.

"You can go a long way without actually typing code," enthuses Raynal. "When you reach the limit of *NeMo*'s behaviours – if you need very specific programming bricks – you just have to enter the SDK and make your own. Actually, the strongest way to work is to build complex behaviours (in C or *NeMo*) according to the gameplay you want, and then give them to designers to allow them to easily build levels."

If *NeMo Dev*'s powerful enabling capabilities attract enough developer interest, its effect on game design **E**

The trials of a start-up developer: part three



After co-founding Lionhead Studios with Peter Molyneux, Demis Hassabis set up his own development house, Elixir Studios. Now that the core team was in place it was time to secure some financial backing

Funding

"The massive buildings of the Broadgate centre, the financial heart of London, towered imposingly in front of me. I was panicking as I realised that I was almost half an hour late for my first appointment with a big-shot venture capitalist. The place was full of people in sharp suits and you could almost feel money seeping. from the walls.

The idea was to approach venture capitalists first rather than publishers so we could complete the game and then approach publishers. If the game was as stunning as we hoped, in theory at least, we would get a much better financial package. If we got a good deal from a VC then the cost, in terms of equity exchanged for the initial investment, would easily be worth the extra royalty percentages we would gain.

In theory the plan was simple: blow them away with impressive stats on *Theme Park*, talk through the detailed business plan, enthuse about the backgrounds and records of the core team and then ask them for £2 million. I'd been advised that it was simply about having confidence. Any sign of weakness and they would be scared off.

Having found the right building, I got into the glass turbo lift and went to the 14th floor. The hot weather and my suit made me incredibly hot. Unfortunately, like the business plan, a suit is a necessary evil. The lift opened, and I walked into the reception with false confidence.

A couple of well-dressed and assured yuppie types greeted me. After a brief meeting they suggested that, as I was late, we should go for lunch to talk through the proposal. I took this as auspicious – I must have made a good first impression. This thought quickly evaporated as I then realised that it was in fact probably an excuse for them to have lunch on expenses!

When three bottles of wine were ordered during the first course I knew that this was going to be a long day. Alcohol consumption at lunchtime has never been one of my strengths. Of course I didn't want to seem rude, so I went along with it (ah, the sacrifices I've made). Over lunch I explained the proposal in depth. Several hours and plenty of alcohol later, they seemed enthusiastic. In fact, so much so that they suggested we meet their boss who, as it happened, was in a pub round the corner. I could see a pattern emerging. The real business of the City is done in restaurants and bars. Your relative importance would seem to be measured by the number of spare tyres you have.

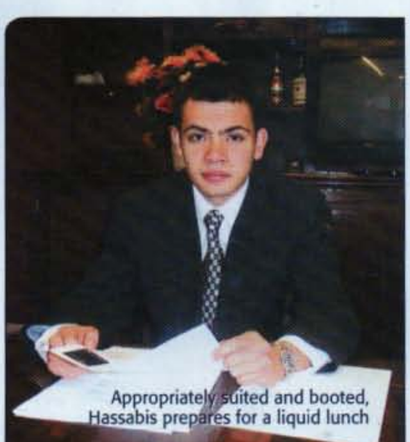
I was drunk, knackered and hot. Five pints of lager later, the meeting was going very well. I'd told them about my chess-playing exploits (I was the world's highest ranked chess player of my age when I was 12) and it seemed to have done the trick. To my amazement, the boss turned round and offered me a job as a currency trader. The starting salary would be £200K plus bonuses totalling ten per cent of whatever I made for the company. Of course I turned it down, saying that creating games was what I wanted to do. Nonetheless, on the tube ride home I did some soul searching to make sure that I was doing the right thing. But there could be no turning back now.

"I was drunk, knackered and hot. Five pints of lager later, the meeting was going very well. To my amazement, the boss turned round and offered me a job"

Several days later, they sent me an offer of funding to the tune of £2 million. My initial elation faded as I read that they wanted 50 per cent of the company for it. This was way too much as it would mean losing control of the company, a situation I wanted to avoid at all costs. It also meant that there would be fewer shares to distribute to the other founders and I wasn't prepared to accept that. I arranged a further meeting to try and thrash this point out, as I was thinking more along the lines of 20 per cent. In the end an agreement could not be reached. It all came down to a question of valuation and of course agreeing on the value of air and potential isn't easy.

I had meetings with a dozen VCs, and they all ended in much the same way. They liked us, but they wanted our soul in exchange for the money. Much to my disappointment, it became clear that if I wanted to maintain control of Elixir, I would have to go the publisher route.

The World Entertainment fair, E3, held every year in Atlanta, was approaching. It would be the perfect opportunity to meet with publishers. However, it was a mere two weeks away and I hadn't booked a hotel or even a flight. Worse still, I'd been funding Elixir with my savings and I was almost broke. Nobody said it was going to be easy, but I'd never dreamed it would be as tough as this."



Appropriately suited and booted, Hassabis prepares for a liquid lunch

Edge moves

Programmers, artists, engineers, producers, animators, project managers – they're all essential to the industry, and they all read **Edge**. The following pages carry a phenomenal variety of jobs for graduates, professionals and any other interested parties who think they could make it in the videogame scene. Apply within...

an audience with...

Ian Livingstone

From Dungeons & Dragons to Lara Croft, Ian Livingstone's credentials are peerless. So what fuels this lifelong passion for games?

Ian Livingstone smokes roll-ups – a strangely endearing feature of a man heading up Eidos, one of Europe's biggest software companies. Rollies usually go with students and bedsits and anyone who wants to make their tobacco fund stretch a bit further. Games industry executives – they're more your restaurant account and fridge full of Don Perignon types. But then Ian Livingstone is no ordinary executive. He is a game designer extraordinaire (he has ten board games to his credit, plus an interactive telephone game and too many Fighting Fantasy books to mention), was a pioneer of pencil-and-paper roleplaying in the UK (he was consequential in bringing TSR's Dungeons & Dragons to these shores), and, ever the competitor, he currently sits proudly atop Eidos' Fantasy Football League.

Kicking off with his earliest videogame dabblings, **Edge** attempted to unearth the truth behind the suit...

Edge: Your first videogame was *Eureka*, in 1985...

Ian Livingstone: Well, as you may know, I started Games Workshop with an old school friend, Steve Jackson, in 1975 and launched *Dungeons & Dragons*. Then I wrote all those 'Fighting Fantasy' gamebooks so I was pretty high profile by the mid-'80s and Domark – then a start-up company – came and asked if I would front this game for them. There's the poster there [points to wall behind him].

Edge: It was a very strange adventure with a real-life prize, wasn't it?

IL: Yeah, it was £25,000.

Edge: And did someone win it in the end?

IL: Yeah, they did. I presented the cheque on TV to the lucky winner. It was a very, very difficult game and was programmed in Hungary for secrecy. It was very funny because in those days – with the old Iron Curtain – we'd go over there and they'd say [adopts strong Hungarian accent], "Oh, it very difficult but we do it okay."

Edge: Was that your first experience in videogames?

IL: Well, no, it wasn't actually because we'd already licensed some of our Fighting Fantasy gamebooks. Adventure International did a couple, and Penguin but they were just text adventures with a few boring line drawings.

Edge: After you'd fronted *Eureka*, did the management at Domark want you to work for them?

IL: Well, no. I was still very much running Games Workshop while writing books in the evening, but I was aware of the computer games market taking off. Actually, I made a small investment in Domark at the time because I thought this is going to be the gaming medium of the future when people got to the stage where they were sick and tired of huge rulebooks and painting huge armies. It's just a question of timing, isn't it?

When I used to play D&D and wargames in the '60s, people seemed to have a lot more time on their hands – you could quite easily get six people around for the weekend to play D&D or the old Avalon Hill or SPI wargames, or long sessions of Diplomacy. That's what I used to do when I was a bored student – play games.

Edge: So you've always been into games, then.

IL: Games have always featured heavily in my life. I've got three rooms devoted to games in my house [pictured right]: one with 600 board games which I've collected from around the world, another with pinball machines and jukeboxes and mechanical machines from the '30s, and then I've got computer games as well.

Edge: So, what sort of videogames do you like?

IL: Well, I'm not so good at action games. At my ripe old age, my manual dexterity is not as keen as it used to be. I tend to play PC games rather than consoles. The game that I probably play the most is *Championship Manager*. I've been a great fan of it for years. Again, it's just pure gameplay. You've got a great backstory, you know exactly the world you're in and you enjoy it. I was born in Manchester and, sadly, quite close to Man City's ground, and have been burdened with that cross for many years now. I usually try to get Man City into the Premier League and win something, though I normally get sacked along the way. But it's great fun trying to lure a big-name player to sign on at poor old Maine Road.

Edge: Does all your experience mean you've got an inside track on what a good game is?

IL: Well, I'm a big gameplayer but that doesn't necessarily mean that you're a designer as well – just because you can read a book, it doesn't mean that you can write one – but I believe I understand, as much as anyone, what makes a good game.

Edge: And do you feel there is a common currency between board games, RPGs and videogames?

IL: What you do learn from playing RPGs and board games is that the key feature often forgotten by computer games is gameplay. When people ask what are the three most important things in a computer game for you, I say, "Gameplay, gameplay, gameplay." Obviously, you've got to have great

"When people ask what are the three most important things in a computer game for you, I say, 'Gameplay, gameplay, gameplay'"

Photography: Jude Edginton


RENNEN
Wildlife Adventure
KARAWANE
COLUMBUS
AVE CAESAR
MATERIAL WORLD
TAHITI
Het vliegende tapijt
GOUDZOEKERS
Maloney's Inheritance
ELEFANTENPARADE
SHARK
BAZAAR
RONCALLI
McMulti
Shocks & Scares
ORGANIZED CRIME
LONG COURS
DAYTONA 500
Pamplona!
Rheingold
CITY
TARGUI
DOWNTOWN
AIRLINES
PONY-EXPRESS
STRUGGLE
FORMULA
BOOM TOWN
ENTDECKER
DIE SIEDLER VON CATAN
ACQUIRE
BIG BOSS
Durch die Wüste
KOSMOS
Dragon Masters

technology and graphics but they should always play a supporting role to the gameplay. If the gameplay itself is rubbish, great technology alone is not going to sell it. Consumers are a lot more aware these days than they ever were, whether it's via the Internet, magazines or word of mouth. It's virtually impossible for a bad game to get through and sell in any great numbers.

Edge: Are videogames in a way more limited than RPGs and board games? Do you think more could be achieved by relying on players' imaginations?

IL: The thing about RPGs and board games is that you get that social interaction, the joy of stabbing somebody in the back, watching the pain on their face as you double-cross them. That's often missing in computer games, although it's somewhat replicated with local area network play. But there's nothing better than beating a human opponent so, therefore, if you can get the computer game to behave like humans then it's going to be a more enjoyable experience. The more progress that's made with AI, the better the gaming experience will be.

Edge: Some of the biggest PC titles of recent years, like *Civilization* and *Command & Conquer*, are doing almost exactly what wargames were doing 20 years ago.

IL: Yeah, I think the key to success, certainly in PC games, is that you've got to have a very strong backstory, something which the player can relate to. I think that a lot of developers moved into abstract games or cutesy games, or just too much science fiction with alien races that you can't relate to. So, one of the reasons I think those games you mentioned were successful, and *Commandos* more recently, is that you've played the game in your head before you even load it up. There's all that imagery that's running in your head that is triggered by playing the game. You're already off to a good start because the player can relate to what's going to happen.

A lot of developers get carried away with the graphics and forget about the backstory and the gameplay. It's always, 'We must do 3D at all costs,' but *Commandos* has fantastically beautiful bitmaps and rendered imagery – it's like a tabletop battle running on your computer.

Edge: So how does this philosophy of yours permeate through into Eidos' products?

IL: My title here is executive chairman, whatever that means. We're a publicly quoted company and as chairman of the board I have duties to perform to the City and to shareholders and all that. But my real role, the role I enjoy the most, is working with development studios, finding new games, signing them up and being chairman of our publishing committee. My role, as the games guru or whatever you like to call it, is to talk with and establish relationships with new development people. These developers tend to trust me because I can talk their language. I've been on the other side of the fence and can understand the idiosyncrasies of the creative process. We've also got a great management team in Charles Cornwall and Mike McGarvey, who run a great business and are able to maximise the potential of the games. I think we've got a unique management team that works very successfully with development studios.

Edge: So is this the reason Eidos has grown so quickly, or are you simply the house that Lara built?

IL: Obviously, Lara has been very kind to us all and I think she'll continue to be kind to us all in the future. *Tomb Raider III* is looking amazing but I think it's very easy, for the press in particular, to want to see Lara fail – it's that British disease of 'build it up and knock it down.' But I think they'll have a lot of trouble trying to criticise *Tomb Raider III* because it is a superb game.

Edge: But what do you say to those people who argue that it's just a second sequel and it's still doing roughly the same things as before?

IL: Yeah, but people, especially in the mass market, want more of the same. And if it's done better than before and is as enjoyable as before, that's exactly what they want. Let's be realistic about this, *Tomb Raider* is now a mass-market product. The combined sales of *I* and *II* are above seven million units. That's certainly not the hardcore gaming fraternity and it's certainly helped drive the sales of the PlayStation. Core has realised, as Lara is a mass-market franchise, that people don't want too much change – it's more of an evolution than a revolution. Techno freaks might say that it's got to have an incredibly quick engine that'll only run on a P400 with a Voodoo II card, but look at the installed base. It doesn't happen.

Edge: Do you not see an end in sight to the *Tomb Raider* franchise?

IL: I can't see it ending in the foreseeable future. *Tomb Raider IV* is already being worked on and that will be a step up in technology as we'll be talking about running on next generation consoles as well as high-end PCs. Then, there's the film which is coming out through Paramount. The producer is Larry Gordon – who did 'Die Hard,' '48 Hours' and 'Boogie Nights' – and we have an executive producer role, with a veto on cast and script, so it's unlikely to devalue the integrity of the product. We're not looking to make a quick buck. If we thought Lara Croft was going to be a short-term phenomenon, you'd have seen a lot more licensed merchandise out there, whether it was Lara wallpaper or underwear or whatever. But we haven't cashed in quickly because we do think Lara has got long term prospects.

Edge: Does that hold true if the market dries up next year and goes into one of its cyclical declines? The PlayStation is starting to look its age...

IL: I think this down turn, this cyclical nature of the business is just not going to be as big as it was in previous times, when first 8bit then 16bit came and went. With 32bit, the PlayStation's been around a lot longer than any previous iteration of hardware, and there's getting on for a 50 million installed base worldwide. Also, the fact that now you've got games-capable PCs, in volume, in the marketplace, means that if there's a slight down turn in console software sales, it's likely to be made up in PC sales. That just wasn't there in the old days.

Edge: But, as you said earlier, *Tomb Raider* is a mass market game. Won't it be harmed if the mass market does go away and you're left with the less faddy PC market?

IL: I cannot see how the massmarket will

"If we thought Lara Croft was going to be a short-term phenomenon, you'd have seen a lot more licensed merchandise out there"


BSA



ever disappear from gaming. It is the new entertainment industry. Sony in particular has made gaming cool through associations with dance and music and their ads. I've been in games over 20 years. When I started Games Workshop, people would say, "What d'you do?" I'd say, "I make games" and they just used to laugh out loud – they wouldn't even try to hide it. Ten years ago, they'd go, "Oh, that's a bit odd," but it wasn't derision. Now, they say, "Oh, wow. That's amazing. What a great job to have." So, the perception of gaming's changed. Add to that the fact that the image you see onscreen is near video quality and the mass-market is attracted to that.

"We've built Eidos as a quality brand and we don't want to tarnish that brand with something that's a sub-optimal product"

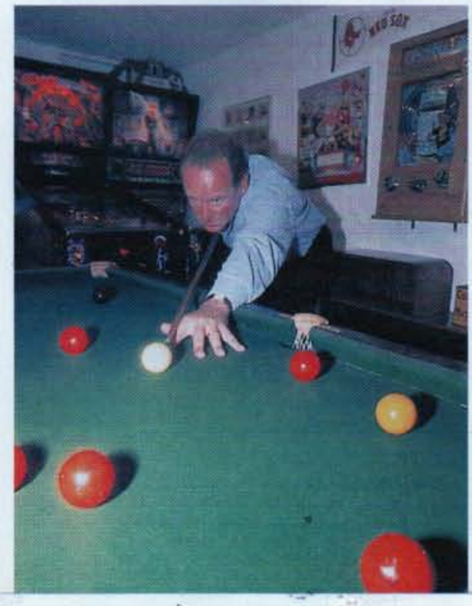
Edge: What about one of your other big titles, *Daikatana*? Won't that suffer from being up against a real mass-market product in *Quake*?

IL: I don't think so. John Romero has got such a fantastic reputation and rightly so, having designed *Quake* and *Doom*. He's got an amazing following and people will be prepared to wait for his output.

Edge: Aren't you worried by the delays for *Daikatana*?

IL: Obviously, part of the delay was porting it from the *Quake I* engine to the *Quake II* engine – people thought it would be easy, it wasn't. But the recent advances made in *Daikatana* have proved it's worth the wait. People say, "What about slippage?" but to my mind there are two kinds of slippage. One, there's gross incompetence where they don't know what the hell they're doing and everything's out of control. Two, there's positive slippage, where we and the developer agree that if we allow another few months, that will be the difference between success and failure.

A great game is worth waiting for. There's no point putting it out early because it's only going to get bad reviews and simply not sell. That's no good for anybody. So, if you can afford the wait, and the public are willing to wait, then you should wait. I don't think anybody in the world knows how long a game is going to take to develop these days, it's just too big. It's an ethereal process which is not like building a brick wall where you know a brickie will lay 12 bricks a minute. We are only interested in putting out quality titles now. We've built Eidos as a quality brand and we don't want to tarnish that brand with something that's a sub-optimal product.



Edge: If that's the case, how many titles are you looking to put out a year?

IL: We develop over 30 games a year. Whether we publish all those is another matter. We have a very strong publishing committee which meets every six weeks and reviews everything that is in development. We'd rather can a product than try and take it that extra mile if we feel it's not got a chance. Why publish something that's no good?

We tell that to every developer that we take on, just because we fund their development, it doesn't necessarily mean we're going to publish their game. They have a duty to make a great game. So, we take a long hard look and we *will* can a game. There's no point shipping it and incurring a lot of extra costs when it's all going to come back on the publisher and we'll lose even more money.

Edge: How many games have you canned recently? It's got to be expensive to do that.

IL: We've probably canned about ten games over the last six months, each of which has cost varying amounts. Some we'll just do a prototype deal up to about £100,000, while others have gone quite a long way down the track, maybe up to £400,000. But that is not a problem as long as your hit titles *are* hits, because the revenue generated by a hit or a super hit like *Tomb Raider* more than covers the write-offs you've made. It's better for the publisher, better for the consumer. It's just sound business sense.

Edge: On the business side of things, are we going to see more consolidation on the part of Eidos? Are you looking for takeover opportunities?

IL: We're always looking for opportunities. Obviously, we've just completed the purchase of Crystal Dynamics and *Legacy of Kain: Soul Reaver* is, to my mind, one of the most exciting console games that's been developed in recent times. And we did look at Psygnosis but at the end of the day we couldn't agree a value. There was a timing issue too, as coming into the busiest season of the year was not the best timing.

But there's a lot of consolidation in the business, very much like the record industry and the movie industry before us. In the old days, there used to be loads of publishers and loads of developers, not necessarily linked in any way. But as it's becoming more of a hit-driven industry, people want security. Publishers want to own content going forward, and the best developers want relationships with the best publishers on a long term basis so they've got their business for the next few years without worrying about it.

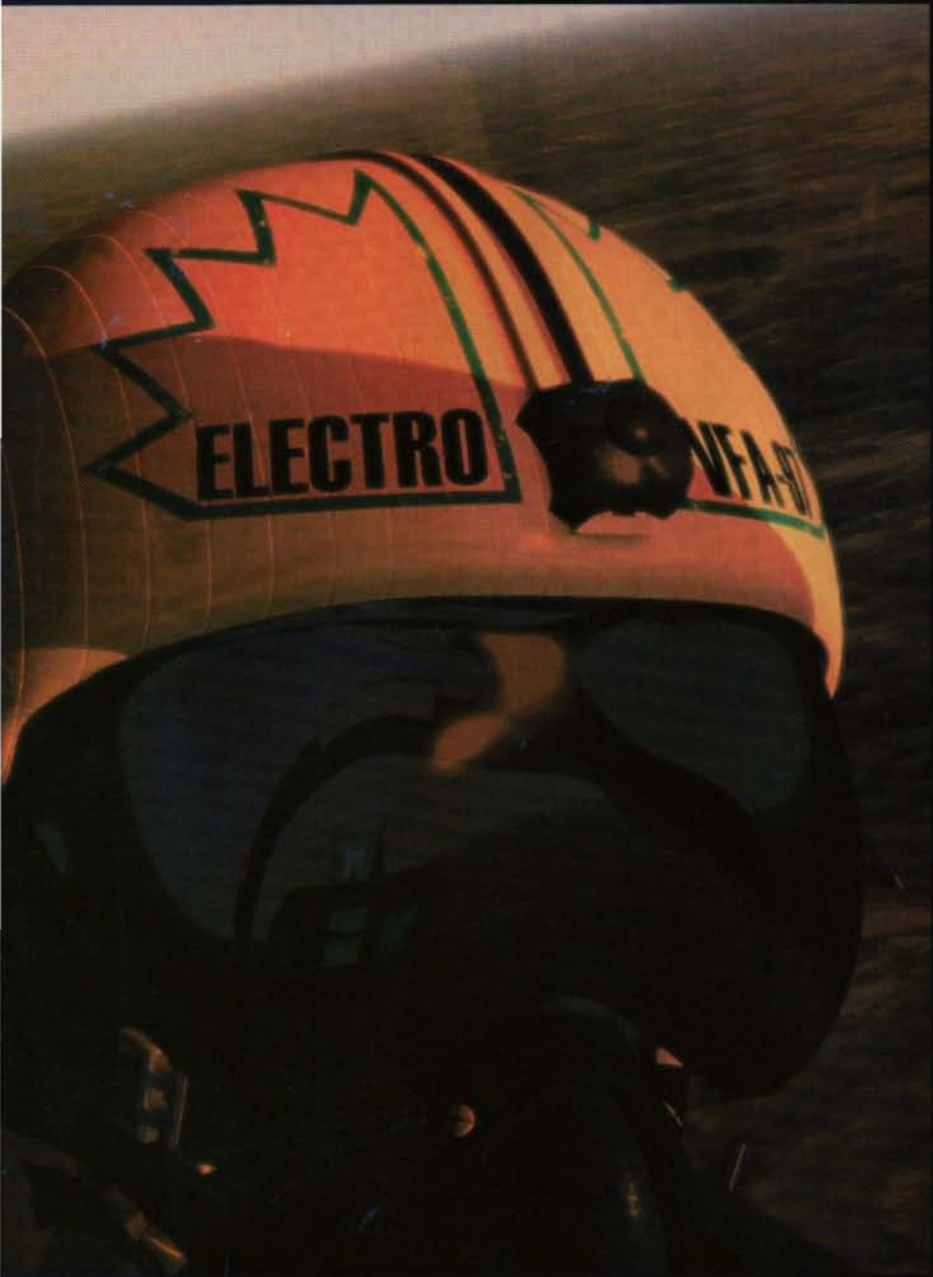
Gallery

The art of the videogame





© Digital Integration 1998



These impressive images are taken from the accomplished start-up sequence to Digital Integration's forthcoming *F/A-18E Super Hornet* combat flight sim. Among several notable aspects, the game features a fully interactive and operational aircraft carrier deck, complete with marshals instructing you by means of their substantial 15-hand-signal-repertoire. Furthermore, a dynamic campaign system enables up to 32 aeroplanes to be controlled simultaneously, and proves surprisingly intuitive.

Images created by Simon Hegarty and Paul Martin using *Lightwave* software











These two speed-capturing renders adequately reflect the essence of Europress' next PC rally venture: *Rally Championship '99*. Developed by Magnetic Fields, the game focuses on the Mobil 1-sponsored championship which features smaller, less powerful cars than the World Rally (WRX) vehicles seen in Codemasters' *Colin McRae Rally*, for example. However, realising the potential of their presence, the developer has included certain world class vehicles such as Carlos Sainz's Toyota Corolla seen here.

Renders by Andrew Bolt, Andy Seymour and Andrew Morris with *Lightwave*

JAMMA: SPECIAL REPORT

SEGA'S NEW NAOMI SYSTEM DOMINATED JAPAN'S LEADING COIN-OP SHOW





Driving games continued to be popular – AM3 unveiled *Taxi* (above). *Dynamite Baseball* (top)

As last month's news revealed, the highlight of the 36th JAMMA show was the arrival of Naomi hardware, Sega's new Dreamcast-derived architecture. With twice the RAM and VRAM of the home unit, and a ROM rather than disc-based delivery system, the board has already attracted eight thirdparty developers, including SNK and Capcom – both putting their own hardware development on the backburner for the time being.

Along with the unit itself, several games were shown, at various stages of completion. Sega's own AM1 introduced *Blood Bullet* (p127) and *The House of the Dead 2*, the latter being the title set to premier the board (more because of the original game's success than *THOTD2*'s ability to visibly push the hardware). Although *THOTD2*'s graphics are gorgeous, and more colourful than its predecessor's, the game follows the familiar pre-calculated, on-rails recipe of previous shooting games. As with the first title, the action splits off on to various paths, depending on the player's performance – here, however, the game's AI has been improved, continually adapting the difficulty level to suit each individual player.

Most other Naomi-based output was generally non-playable. AM1 flaunted *Dynamite Baseball '98*, a crisp and attractive rendering of the sport. It's been three years since the last title in the series and the improvements are immediately obvious. As with previous titles, the game features all the players from the Japanese league, but now AM1 has taken their faces and accurately mapped them onto the ingame representatives. The twoplayer-compatible coin-op also features an interesting analogue controller which allows players to vary their batting force.

Elsewhere, AM4, previously specialising in cabinet design and hydraulics, revealed its first software efforts. The department showed early scenes from an as-yet-untitled driving game where players must knock opponents' cars off the road. AM3 also had a driving game on show – a mysterious project currently going by the title of *Taxi*, which **Edge** is assured is based on a film of the same name.







AM1 chose the graphically rich *The House of the Dead 2* (above and left) to premier the Naomi board, after the first version proved a great success

Finally, Capcom announced its own support for Naomi after the event – a weapon-based beat 'em up set in the 18th century entitled *Power Stone*.

Ultimately, Naomi is undoubtedly good news, not just for Sega, but for the coin-op industry in general. As has been previously clarified, Model 3 games are simply too expensive for many arcade operators to buy, in turn putting off potential thirdparty game developers. Naomi represents a much cheaper, high-end alternative which could well prove scaleable, thanks to the flexible Power VR 2DC graphics engine. Plus, the cross-pollination between coin-op and home console technology has proved a profitable endeavour in the past, with Sega ST-V and Namco System 11 and 12 games simultaneously advertising respective home formats, and feeding off their branding.

Although ultra-high-end development will always be an important part of arcade development (announcements concerning a successor to Model 3 are expected next year), the industry cannot be criticised for experimenting with more thrifty options. This has, after all, been a difficult 12 months for the likes of Sega, and an emphasis on quality software, rather than polygon-pushing silicon, should do neither manufacturers nor consumers any harm.





Although the board is closely related to Sega's Dreamcast, it features double the RAM (32Mb) and twice the VRAM (16Mb) of the console

Naomi Specs

CPU: SH4 RISC CPU (200MHz, 360 MIPS/ 1.4 GFLOPS)
Graphics Engine: Power VR 2DC
Sound Engine: Super Intelligent Sound Processor (32bit RISC CPU)/ 64 Channel ADPCM
Main Memory: 32Mb (64bit SDRAM)
Graphics Memory: 16Mb
Media: ROM board
Colours: 16.77 million

BLOOD BULLET

'THE HOUSE OF THE DEAD SIDESTORY' UNVEILED FOR NAOMI (AND DREAMCAST?)

Developer: Sega (AM1)
Release: TBA
Origin: Japan

With *Resident Evil* and *The House of the Dead* already doing well, and Konami's *Evil Night* on the way, zombies seem to be flavour of the moment in gaming culture at the moment. AM1 is determined to cash in: as well as *The House of the Dead 2*, the dept is also working on *Blood Bullet*, a *Resident Evil/Die Hard Arcade*-inspired thirdperson shooter based in the *House of the Dead* universe. Players wander through a zombie-filled town, shooting at anything that moves, while looking out for powerups to refill their life gauges, and keys to open doors. Visuals are impressive but the control system's a tad unresponsive and inaccurate – perhaps due to the early stage of development (it's still only 20 per cent complete). As the game's text is in English, this one is probably aimed at the US market. A Dreamcast conversion seems likely.







With *The House of the Dead* providing the backdrop, AM1's *Blood Bullet* shows promise

SEGA'S SECOND WAVE

SEGA'S OTHER JAMMA COIN-OPS PREVIEWED BY EDGE'S JOYSTICK-HAPPY VETS

Developer: Sega
Release: TBA
Origin: Japan

Sega's JAMMA showing was more symbolised by internal re-shufflings than sparkling new games this year. AM Annex has taken on more staff and become AM12, while Toshihiro Nagoshi (*Scud Race, Daytona 2, SpikeOut*) quit AM2 to set up AM11, taking 50 co-workers with him. There's also been a shift in corporate strategy – moving away from high-end development and towards cheaper hardware – in order to attract operators. This is a financial necessity, but how well it will go down with the AM creatives (whose objectives include creating games impossible for the home) is unclear.

Back at the show, *Star Wars Trilogy* was intended to be one of the top titles, but drew a disappointing response. Before the opening, Sega had been so confident about the game it placed the machines directly opposite Konami's *Beatmania 3rd Remix*, and then watched in horror as crowds of otaku ignored it in favour of some top mixing action. Perhaps the game (an on-rails shoot 'em up with various vehicles and locations from the film trilogy) wasn't innovative enough. As with *House of the Dead*, the player's route differs in relation to what they shoot, and the difficulty level alters depending on individual ability, but it seems that Japanese gamers love zombies more than Jedis. *Star Wars Trilogy* will receive a more enthusiastic welcome in the west.

Another lightgun effort was *Ocean Hunter*, AM1's underwater Model 3 shooter. Although not as intense as AM3's *Lost World*, the game boasts beautifully atmospheric visuals, an interesting range of baddies (sharks, octopus, piranhas) and a smooth camera. The fixed gun and lack of AI may put off fans of modern blasters but, well, the varied sub-aqua scenery will no doubt attract water wildlife fans.

There were two more titles on show: *Dirt Devils*, the Model 3 racer from AM3 (see **E**64), and AM2's promising beat 'em up, *SpikeOut* (**E**63). As is often the case, true innovation played second fiddle to the evolution of key genres. **Edge** wonders whether this can continue indefinitely. Judging by the popularity of Konami's weird and wonderful music-based machines, the answer is not as certain as it might have been two years ago.



Ocean Hunter: never mind the action, feel the quality of that underwater feeling



INSIDE AM1: RIKIYA NAKAGAWA SPEAKS OUT

EDGE GETS THE LOWDOWN ON SEGA'S LATEST ARCADE HARDWARE VENTURE

Edge caught up with **Rikiya Nakagawa**, general manager of the AM1 division currently working on *Blood-Bullet*, *The House of the Dead 2* and *Dynamite Baseball '98*, at JAMMA to chew over Sega's Naomi strategy.

Edge: So, why release the Naomi board?
Rikiya Nakagawa: After finding out Dreamcast's specifications we thought it would be nice to do a similar thing to what we did with the Saturn and the ST-V. With Naomi, we wanted an arcade platform on which thirdparties could easily develop different types of games. But, of course, it also allows operators to change games without having to change the hardware. Also, because of its cost [half that of a Model 3 board], numerous operators that cannot afford Model 3 can now obtain Naomi.

Edge: What are the specific differences between Dreamcast and Naomi?
RN: The ROM cartridge and the CD-ROM. Essentially, it's the same as the Saturn and ST-V board. Naomi's memory capacity is larger – the main and graphics memory are double and the sound memory is four times that of Dreamcast.

Edge: How difficult will it be to convert a game from Naomi to Dreamcast?
RN: We're currently developing the libraries. When these are finished, we'll be able to make conversions almost instantly. The Naomi board is upwardly compatible with Dreamcast – to convert games from Dreamcast is more difficult, though the conversion process doesn't really take long.

Edge: What do you feel are the strengths of the Naomi system?
RN: Spot lighting, bump mapping, and texture rendering, for example. There are many things that Naomi can do more precisely than Model 3.

Edge: How do the two differ?
RN: Model 3 displays one million polygons regardless of what else you do or what effects you use. Naomi offers more effects than Model 3, but the number of polygons displayed is dependent on the effects you use. But if you know how to use the Naomi board it will match Model 3 on a visual basis. When you see Model 3 conversions running on Dreamcast you'll be able to judge the result for yourself.





The House of the Dead 2 is just one of the Naomi-powered titles showcased at JAMMA



Edge: Some of the Naomi games currently in development use the Dreamcast's VMS. How does that work?
RN: Well, in the baseball game, for example, you'll be able to use the team data from the Dreamcast version in the arcade.

Edge: Is it true that players won't be allowed to transfer data from an arcade environment to their Dreamcast?
RN: That's right – this is forbidden in Japan, but it should be okay in other countries.

Edge: So, with a VMS-compatible coin-op, will players always need to have a Dreamcast unit at home?
RN: Not always. There are cases where it'll be possible to bring data only to the arcade. We've yet to decide on the format of the data itself.

Edge: Traditionally, Sega has developed an arcade title without giving the console version any thought, but given the power of home formats such as Dreamcast, has there been a change in strategy?
RN: No, we still do things the same way. First, we think about making an arcade game and then, if the arcade version is good, we'll consider a conversion. If we decide to go ahead then we adapt it for the consumer market. When people try to do two things at once, very often both end up badly done.

Rikiya Nakagawa, AM1's general manager, plans to release 15 Naomi-based projects a year

DANCE DANCE REVOLUTION

KONAMI MADE ALL THE RIGHT MOVES AT JAMMA WITH ITS LATEST MUSIC-DRIVEN TITLE

Developer: Konami
Release: TBA
Origin: Japan

Few people would question *Dance Dance Revolution*'s status as the game of the show at JAMMA. An evolution from Konami's *Beatmania* coin-op, this latest music-based arcade game reaffirms the directional change recently undertaken by the once highly aggressive company. Whereas only a year ago Konami would have been releasing titles aimed at clearly competing against the driving and sports ranges of Sega and Namco, the company now seems increasingly happy with exploiting rhythm-based titles. And, given the queues for *Dance Dance Revolution* at JAMMA, it has found a potentially lucrative market.

As reported in last month's **Edge**, after choosing one of nine musical styles (from techno to disco), players must follow the dance steps displayed on screen by stepping on the respective pressure pad located at their feet. Four possibilities are offered (left, right, forward, back) and a mixture of manga-like characters and inorganic forms lead the visuals.



***Dance Dance Revolution* was the show success story. Queues were long, but laughs were plenty**









Ditch any kind of self-consciousness you may possess and jump around the cabinet's pressure pads in an attempt to follow the onscreen pointers

GRADIUS IV

FOURTH INSTALMENT MARKS RETURN TO 2D PERSPECTIVE

Developer: Konami
Release: TBA
Origin: Japan

Having made a last-minute decision to show it to JAMMA visitors, Konami's shoot 'em up nestled in a corner of the company's booth and clearly has some way to go before confronting Japanese arcade goers. After the relative failure to ignite the 3D arcade shoot 'em up world, the company has returned to a more traditional, horizontally scrolling approach backed up by a classical visual style.







Having tried a third dimension, the fourth *Gradius* adventure remains firmly in 2D

EVIL NIGHT

KONAMI UNVEILS ITS ADAPTATION OF LIGHTGUN HORROR

Developer: Konami
Release: Out now (Japan)
Origin: Japan

One of the diminishing 'mainstream' titles from Konami, this is a horror lightgun title similar to Sega's *The House of the Dead*. There are five stages with alternative routes available – provided you shoot the right item. Interestingly, you can choose between a threeplayer handgun or twoplayer shotgun mode. Three endings and 30 different characters are encountered by those prepared to venture through the entire game.







Although hardly a visual revolution, *Evil Night* is nonetheless entertaining with two other players

FIGHTING LAYERS & RACE ON

NAMCO FAILS TO SHOW LATEST TEKKEN, BUT ITS LINE-UP COMPRISES TWO PROMISING NEW TITLES

Developer: Arika/Namco
Release: TBA
Origin: Japan

Despite strong pre-JAMMA rumours, *Tekken 4* did not form part of Namco's line-up. There was nothing in the way of new technology either. Instead, disappointed visitors were consoled with the company's two new games. The most surprising title is Arika's *Fighting Layers*. Although usually associated with developing the *Street Fighter EX* series for Capcom, Arika has settled on a Japan-only distribution agreement with Namco, which could indicate that all is not well between Capcom and the (relatively) small beat 'em up specialist. The game is a classical 3D beat 'em up affair with a six-button configuration aimed squarely at hardcore arcade fighting fans. As such, expect a gauge-based system of special attacks and cancel moves resulting in complex fight sequences. More advanced features include the automatic linking of special attacks and the ability to teleport across the screen. Unexpectedly, *Fighting Layers* features two characters from the *SF EX* series, albeit with different outfits and altered names. Eight stages host the violent encounters, in what is ultimately an evolution of the developer's esteemed 2D fighting series.

Namco's other revelation is its latest racing title, *Race On*. It uses the Nam-Cam feature (a digital camera located on top of the cabinet which photographs your face and incorporates it as part of the screen display), first seen in *Gunmen Wars*. Aimed at the casual arcade goer, the gameplay is understandably simple, requiring you to bump your way past other vehicles within a highly colourful environment in order to reach your goal before everyone else. The multiplayer potential is huge, and Namco has duly made provisions for up to eight cabinets to be linked, thereby heightening the potential for chaos.





Arika's track record in beat 'em ups is firmly established. Expect *Fighting Layers* to prove highly enjoyable







Race On's distinctive Nam-Cam transfers images of players' faces on to the screen

ALECK64 ARCADE BOARD

SETA'S N64-BASED ARCADE ARCHITECTURE MAKES A RATHER SUBDUED JAMMA APPEARANCE

Developer: Seta
Release: TBA
Origin: Japan

Tucked away amidst the stand of Japanese peripheral-manufacturing company Visto at JAMMA stood the ALECK64 board.

Based on Nintendo 64 hardware, and naturally developed with a custom licence from Nintendo, the affordable board offers similar internal structure to the 64bit console with the exception of enhanced audio and 2D capabilities, as well as a higher amount of RAM available to developers. The similarities extend to the use of carts boasting N64-like connections.

Three of the five titles announced were playable. *Star Soldiers*, a shoot 'em up from Hudson, led the pack, supported by a sports-based duo in the form of tennis title *Let's Smash* and football game *Eleven Beat World Tournament*. Although not playable, a golf title from Seta and tile puzzler *Vivi Dolls* (where the objective is to clear a screen full of mosaic tiles obscuring an image of a naked girl) completed the quintet of ALECK64 games.

Prospects are not particularly bright for this venture, which is perhaps best illustrated by NCL's reluctance to associate itself with the board's promotion – developed by Seta it will be distributed via Visco.



Although affordable, don't expect a coin-op manufacturer rush to develop for this venture

CHAOS HEAT & RAY CRISIS

TAITO SHOWCASES A 3D ACTION TITLE AND APPEASES RAY FORCE FANS WITH NEW SERIES EPISODE

Developer: Taito
Release: TBA
Origin: Japan



Taito's G Net board stores players' handles, allowing continuation of a game at a later date

As one of Taito's two new offerings powered by the company's new G Net board, *Chaos Heat* is a traditional 3D action title. The events take place in six laboratory-themed levels, where twoplayer cooperation is advised. In order to discourage you from firing continuously, a weapon-overheating gauge has been added. Powerups are present throughout and other weapons such as rocket launchers, flame throwers and even missiles become available further into the game.

Ray Crisis, on the other hand, is more representative of Taito's coin-op range. As the eagerly awaited third episode in the popular *Ray Force* series, there was little evidence of it offering anything less than its predecessors. Set within a computer network, it offers a random stage progression system ensuring you face a different challenge every time.



***Chaos Heat* (above) is a decent 3D action-based adventure. More impressive is *Ray Crisis* (top), whose great visuals depict a computer network**

BLOODY ROAR 2 & SAMURAI SPIRITS 2

PERHAPS PREDICTABLY, JAMMA OPENS THE DOOR TO SEQUEL HEAVEN FOR BEAT 'EM UP FANATICS

Developer: Raizing/SNK
Release: Out now
Origin: Japan

In addition to being a decent beat 'em up, *Bloody Roar*'s most interesting gameplay feature remains the ability to morph the characters into their beastly ulterior form. It's little surprise, then, to find that this aspect has made it into the sequel. The rest of the game, however, has undergone several alterations. The speed has increased and the fighting abilities between the human and beast characters are more pronounced, with the latter displaying even more violent behaviour than before. New special attacks are also included. Three characters from the original have survived the transition and are joined by six new contestants possessing similar metamorphic tendencies. An eventual PlayStation conversion is pretty much a certainty.

Elsewhere, a *Samurai Spirits* sequel returns, hoping to better its disappointing predecessor. Two new characters have been added (giving a total of 13 fighters), new attacks and special effects implemented, and gameplay simplified. As a result, combos are smoother and easier to achieve and screen information has been reduced in an attempt to improve the visual interface. SNK has fine-tuned the core engine (*Samurai Spirits 2* is the company's second 3D venture), but graphically there is little difference between the two instalments.



Those expecting major changes in SNK's *Samurai Spirits 2* will be sorely disappointed



Raizing's *Bloody Roar 2* looked particularly impressive, boasting some excellent visuals

Populous

The stir Lionhead's *Black and White* (see p50) has been causing within the gaming community inspired **Edge** to take a trip back to the late-'80s, when Peter Molyneux's fledgling Bullfrog crafted the premier 'god' game



Originally an inspirational title for the Amiga and ST, *Populous* made the transition to many formats, including the SNES (from which these shots are taken). The game essentially paved the way for the likes of *Civilization*





The Amiga's departure from the gaming mainstream was both inevitable and ignoble, yet its contribution to the software marketplace is considerable. Among its many legacies, UK codeshop Bullfrog illustrates the format's then unforeseeable role as a training ground for future console and PC programming talent. Almost a decade on from its inaugural release for Commodore's machine – and with the Amiga now fodder for attics and the Euro 'enthusiast' – Peter Molyneux's former acolytes have revisited *Populous*, the inspirational, nine-year-old design brief behind EA's forthcoming third instalment.

Populous: A New Beginning boasts a heritage that modern-day publishers genuinely appreciate: two predecessors with over five million combined sales. Yet, strangely, the fledgling Bullfrog saw *Populous* rejected by a number of publishers, before Electronic Arts took an interest in the project. With EA's growing marketing savvy married to Molyneux's vision, the first 'god' sim graced over a dozen formats.

Incredibly, *Populous* enjoyed commercial success in Japan, a market notorious for its apathy towards most



entertainment software from the west. How many other titles of UK origin have appeared in TV-based tournaments in the world's most competitive videogame market? It remains a significant achievement.

Many 'new' genre iterations suffer inauspicious beginnings, their creator's ideas and ideals overshadowed by a lack of technical and aesthetic expertise. Conversely, *Populous* was far ahead of its time in its usage of an engine that gave players the power to rotate and alter the scale of its isometric world. Similarly, its emphasis on 'nurture' as opposed to 'control' – like Maxis' *Sim City* – singled it out as a pioneering, off-beat release at a time when the digital joystick and twitch gameplay dominated.

Publisher: Electronic Arts	1989	Developer: Bullfrog	Amiga/ST

News

Pinball has long since shed the '70s-fad reputation it once had as a gaming activity, yet Microsoft is about to repackage the silver ball's history in digital form for the '90s

Following last month's mention of *Pinball Arcade*, more information regarding Microsoft's compilation for the PC (naturally) has come to light. Offering seven tables in total, all licensed from legendary silver-ball manufacturer Gottlieb, the package simulates an example from every decade from the 1930s up to the 1990s. *Baffle Ball* (from 1932) is the first table in the pack, in all its glorious wood-veneer splendour, and is followed by 1947's *Humpty Dumpty* (the first machine to feature flippers), then *Knock Out*, *Slick Chick*, *Spirit of 76*, *Haunted House* (the first table to feature three layers of play) and *Cue Ball Wizard*. Pinball lovers should expect it in November.

Meanwhile, Namco has appeased the needs of Japanese retro freaks with the launch of *Namco Anthology 2*, showcasing another four titles from the company's back catalogue. However, offering *Pac-Attack*, *Namco Classic II*, *Adventure of Valkyrie* and *King of Kings*, it's proving nowhere near as successful as the previous *Museum* series.





Two classic pinball games digitally recreated by Microsoft for the *Pinball Arcade* collection include *Cue Ball Wizard* (left) and *Spirit of 76* (above)



Pioneer NS-5 mini system
Contact: Pioneer 01753 789789

Last year Pioneer blew away the competition with a startling little hi-fi called the NS-7. It was small, silver and chic, sounded impossibly good for its size and went on to become the best-selling mini system of the year. *Wallpaper*-reading urban modernists loved it.

Now that system's little brother, the NS-5, is about to hit the stores. Not only is this system cheaper, but against all the odds it actually sounds better, thanks to a pair of 25W speakers that can handle almost any kind of music you throw at them. A CD player, RDS radio (the kind that gives the station name instead of a series of obscure numbers) are featured and, in the version **Edge** saw at least, a MiniDisc recorder. The system's USP is an enormous LED display which glides from horizontal to vertical whenever you switch the NS-5 on. It's gimmicky as hell, but will wow visitors and enables the listener to see what the system's up to from the other side of the room. If only all hi-fis were made this way.



Nokia 8810 GSM mobile phone
Approx £400 with network connection Contact: Nokia 01480 434343



Mobile phones are no longer simply a way to stay in touch when you're away from home or the office – now, they're fashion accessories. The last 12 months has seen a slew of smal beautifully designed and colourful mobiles that are as amazing to see or be seen with, as they are to use.

Enter the Nokia 8810. Slimmer than a cigarette packet and weighing just 152g, the chrome-covered 8810 has been designed to slip into a shirt pocket, yet still boasts more GSM tricks than could be found on phones twice the size a year ago.

Lurking behind the protective key cover is a surprisingly simple user interface which can be used to store up to 300 names and numbers – each with its own user profile – as well as a calendar, calculator, and text message service (SMS). Nokia's even included three simple games with infrared linking so it's possible to play against another Nokia owner. (The recommended range from one infrared port to another is three to four inches.)

The phone's no slouch when it comes to battery life either, offering three to five hours talktime or 100 hours on standby between recharges. In fact, the only thing wrong with the 8810 are its buttons. They're too small for fat-fingered fashion cognoscenti.

New government rules mean that manufacturers are no longer obliged to provide recommended retail prices on certain consumer electronics products.

Samsung CW-30A90SD Super Hi-Tron Television

£TBA Contact: Samsung 0181 391 0168

The arrival of digital TV means a lot more widescreen broadcasts from now on, but since it's going to be a long time before everyone buys a widescreen box, you're going to see a lot more conventional 4:3 broadcasts as well. The result? Neither 4:3 or widescreen TVs will truly be able to show both types of programme to their best advantage. Solution? A telly that offers the best of both worlds.

The 30-inch Super Hi-Tron has an aspect ratio of 12.8:9, which not only enables it to show a whole extra inch of picture on 4:3 broadcasts than ordinary tellies can, but also shows widescreen broadcasts without shrinking them down to nothing. Of course, none of this is worth a tin of beans if the picture isn't up to scratch, so it's just as well the Super Hi-Tron does a decent job in that department as well. The only slight disappointment is revealed with the sound, the speakers sounding a little unhinged with bass belted out by the set's Dolby Pro-Logic decoder.



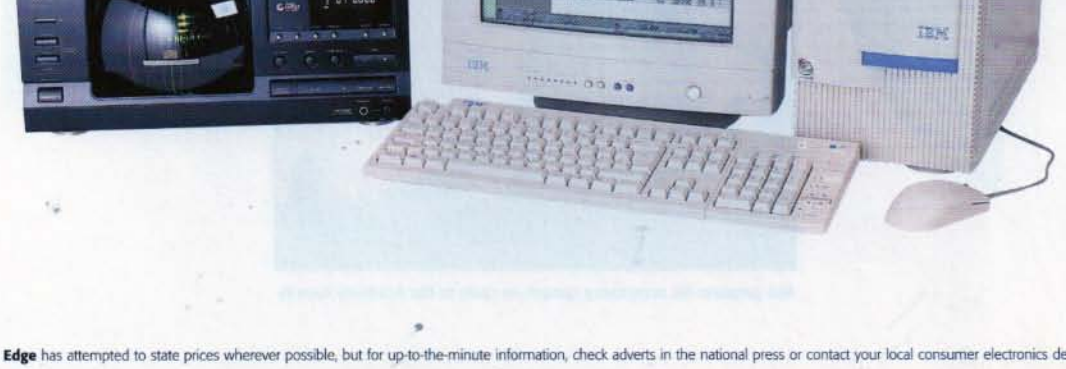
Music Maestro MM-1 CD Management System

Total Package £1,600 Contact: Music Maestro 01635 48413

The Music Maestro CD management system enables disc devotees to catalogue every single CD in their collection right down to individual tracks, then play them ad infinitum using up to 24 101-disc CD multichangers daisy-chained together. The key to all this? Music Maestro's own PC software.

The system **Edge** tried out proved remarkably simple to set up and use. Comprising two Pioneer PD-F CD multichangers, a Music Maestro V-4/1 mixer and a PC interface card, which enables players and your PC to talk to each other, simply load up the discs and catalogue like crazy.

Thankfully the Music Maestro package has 5,000 of the world's most popular albums preprogrammed in, but it's easy enough to add your own. The best bit happens when the system's up and running – it can be programmed to play tracks by musical genre, artist or from keywords in the title, and can be set to play certain kinds of music at certain times of the day or just play one track after another forever... The only downers, of course, are that it's impossible to play CDs without turning on the PC, and constantly having to run the software wastes valuable processor power. Still, if music be the food of love...



Edge has attempted to state prices wherever possible, but for up-to-the-minute information, check adverts in the national press or contact your local consumer electronics dealer.

Japanese crew bust winning moves





The Japanese crew (above) won PlayStation gear. And £500 cash

UK: The third annual PlayStation UK Breakdance Championship – mentioned briefly in last month's Out There – was apparently a storming success. The event, held at the end of September in the cavernous Brixton Academy, attracted 5,000 B-boys and B-girls, many of whom spent the afternoon queuing three times round the building. Although a club-style atmosphere was expected, what materialised was more of a show (think Riverdance, but cool), with the audience watching in open-mouthed wonder as competitors took to the stage and performed an eclectic combination of robotics, body popping and breaking. Veteran competitor EVO walked off with the Individual B-boy title, while Japanese upstarts Spartanic Rockers were voted best crew. £500 pounds and a pile of PlayStation goodies went to both sets of winners. Er, respec' was due.

A controller with balls

UK: While it's hardly the most attractive PlayStation peripheral currently available, Ascii's Sphere 360° nevertheless is the only joypad on the market to offer you true 360-degrees of movement via its patented PowerSensor ball technology. And it's pretty good, too, provided your head doesn't explode during the period it will take you to adapt to controlling 'six axes of full-freedom movement' as stated on the side of the rather large box it's packaged in. You wouldn't necessarily want to play all of your games with this, but as a highly specialised controller, say, for *Incoming* or *RC Stunt Copter*, it serves its purpose admirably. (Contact your local store for details.)

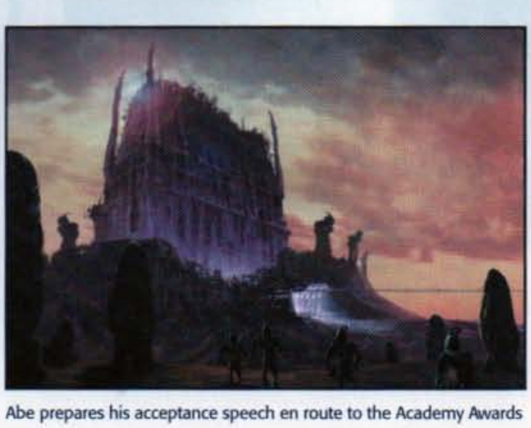


Hollyworld: Abe's Oscarrus

US: Although he may not have shouted it from every rooftop of the world's tallest skyscrapers, Abe knew that he was destined to conquer more screens than just those displaying his PlayStation and PC adventures. Which is why, after having set his sights on Hollywood, the likeable Mudokon is now intent on making it on to the silver screen.

Aware of Abe's steely determination, developer Oddworld Inhabitants has duly agreed to his wishes and entered 'Oddworld: Abe's Exoddus The Movie', an animated short derived from videogame footage, for Academy Award consideration. This marks an unprecedented occurrence in the Academy's illustrious history.

Naturally, Abe secured the lead role, and his struggle to shut down the SoulStorm brewery where so many of his fellow Mudokons work as slaves, mining the bones of their ancestors to be used in an addictive drink, is related in magnificent CGI form.



Abe prepares his acceptance speech en route to the Academy Awards

DataStream

Number of issues since last DataStream: **22**
Percentage of Dutch people who smoke cannabis: **3%**
Amount paid by Hasbro to acquire Microprose: **$70m**
Amount paid by Marmite to sponsor the Chris Evans morning show on Sky One: **£500,000**
Number of copies of *Turok 2* expected to sell in Europe: **600-800,000**
Amount US Government spends on computer-related goods and services annually: **$20b**
Approximate worldwide box office takings of 'X Files: Fight the Future': **$150m**
Percentage of US console market accounted for by software developed in UK: **15**
Money lost to pirates by UK software industry in 1997: **Approx. £134m**
Number of piracy arrests in last 12 months: **76**
Average length of sentence: **4 months**
Average fine: **£250**
Number of titles rated under ELSPA self-regulation scheme between Feb '94 to Apr '98: **2,844**
Number given a BBFC rating: **187**
Number receiving an '18' certificate: **20**
Sega net loss for the fiscal year ending March '98: **¥43,300m ($306.8m)**
Namco net profit for year ending March '98: **4,658m Yen ($33m)**
Konami net profit for same period: **5,002m Yen ($39.43m)**
Price of a used *Sega Rally Deluxe* cabinet: **£4,300**
Estimated number of Internet users worldwide: **90.75m**

Sources:
www.cnn.com
www.elspa.com
Media Week
CTW
AB Europe
Internet.Works

Game school: part one

Setting up a videogame development studio can be a logistical and financial nightmare. Luckily, though, **Edge** is here to help with a new series of hints and tips for prospective software companies.

Part 1: Naming the company
Choosing a name for your company can be one of the most difficult endeavours you'll face. It should encapsulate both your image and your approach to videogame development. Here are three columns of 'prospective' words to mix and match as you see fit. Hey, by using this guide, you can come up with a name in ten minutes rather than after two weeks of intense arguments!

Step One	Step Two	Step Three
Dark	Digits	Interactive
Cheeky	Underworld	Inc.
Broken	Monkey	Collective
Plastic	Necropolis	Software
Polygon	Sepulchre	Brothers
Interactive	Chalice	Design
Lubricated	Lampstand	Studios
Delphic	Design	Clan
Morbid	Package	Corporation
Glossy	Cuckoo	Unlimited
Pink	Interactive	Inhabitants
Frisky	Universe	Entertainment

The Hunter returns








Following on from the surprising and dramatic success of *Deer Hunter*, the mid-price marksmanship sim aimed at casual gamers with low-spec machines, WizardWorks has recently completed a sequel, cunningly named *Deer Hunter II*. Obviously expecting a sell-out, publisher GT Interactive has shipped 500,000 units to shops in the States, suggesting a retail price of $20 a pop. The new game comes complete with improved 3D graphics, ultra-realistic deer behaviour, enhanced weather effects and, most worryingly, 'many powerful new weapons'. Rumours that GT has brought over the grenade launcher and chaingun from *Quake* have yet to be confirmed.



MUSIC
£35 Codemasters

Out in the shops this month, Codemasters' dedicated dance music and video creation tool should appease all who felt Sony's *Fluid* proved a little limited. Indeed, other than the inability to import new sounds via a sampler, this musical release behaves very much like professional music-making packages, albeit with prerecorded sounds. Even the most musically challenged individual should be able to put together a basic tune with ease.




He has your eyes, darling!





Information can be exchanged via reversible VMS data ports

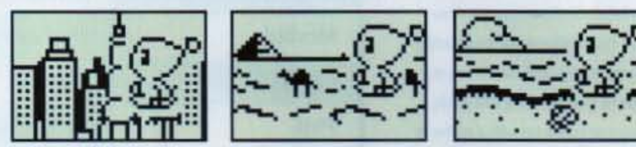
Japan: Quite how *Sonic Adventure* was going to interact with Sega's Visual Memory System for Dreamcast has been something of a mystery. Until now, that is.

As demonstrated by Sonic Team leader Yuji Naka at the Tokyo Game Show, players must gather these fetching blob people together for a spot of extra-curricular activity. The results can be saved to the VMS for rearing by hapless players as yet another surrogate Tamagotchi.

Whether the creatures will form an integral part of *Sonic Adventure*'s overall game system, or merely exist as a pleasant adjunct to it, isn't known. Judging by their appearance, the watery little weirdos are in some way related to the aquatic Chaos beast which Dr Robotnik has created to defeat Sonic.

While welcoming such diverting trickery to the videogaming fold, **Edge** looks forward to the day when the VMS is used for something more innovative than replicating Bandai's original pocket pet.





The technological difference between Dreamcast and VMS is purely cosmetic, really...

Stuck in Japan

Japan: As **Edge**'s Big In Japan section may have hinted at over the last 12 months, not every one of the dozens of videogames released in Nippon every week is suitable for western consumption. Check out the following examples...

1. Bishi Bashi Special (Konami) PlayStation

A filled-to-the-brim compilation of three arcade titles – *Super Bishi Bashi*, *Handle Champ* and *Bishi Bashi Champ*. Distributed among these delightfully named treats are 46 mini-games, designed to be played between up to eight competitors. These range from simple shoot 'em ups and tank battle games to school room-based competitions. One of the latter involves each player taking it in turns to pump the lead out of a retractable pencil; whoever runs out of lead first is the loser (much like life, then). Each game is based around humorous, snappy concepts and the visuals are suitably comic. Incidentally, the term 'Bishi Bashi' refers to a multiplayer competition. If only the phrase was universal – 'Quake Bishi Bashi Deathmatch' sounds so much more inviting.



Bishi Bashi Special

2. Battle Konshu Den [Legend of the Insect Battle] (Jaleco) PlayStation

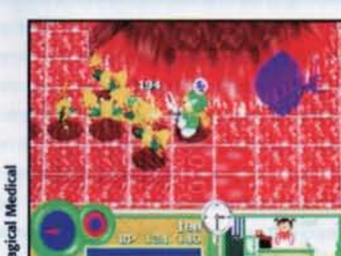
For centuries a favourite summer holiday activity for Japanese schoolboys has been going out into the forest, finding a beetle and then pitting it in mortal combat against insects nurtured by his friends. (Think of it as a more violent version of conkers.) Now, however, they don't need to bother with a long walk into the woods; Jaleco's *Battle Konshu Den* is an insect battle RPG that simulates the whole business. Here, players take on the role of a schoolboy who ventures into a nearby forest to look for fighting beetles. There are a variety to be found, each with their own skills, and once they've been picked, the game follows the classic Pokemon recipe: ie, raise and feed the six-legged pugilist before pitting it against a friend's equivalent. Apparently, a sequel is due in which the player pulls the legs off crane flies and burns ants under a magnifying glass.



Battle Konshu Den

3. Magical Medical (Konami) PlayStation

Videogame players looking for a career in medicine should perhaps consider buying this on import. *Magical Medical* is an RPG set inside the body of a hospital patient. Using a simple and familiar RPG interface, the player has to guide the main characters around the patient's body, fighting bacteria. Along the way, you also have to discover various medicines and combine them to produce antibodies to defeat the different infections. Luckily, it's also possible to consort with a cute nurse character for help during the game. There's probably some way the Dual Shock joypad could be put to use here, although **Edge** doesn't really want to dwell on it too much...



Magical Medical

Commercial nightmare

Japan: Sega manager Yukawa Hidekazu is fast becoming a legend in his own tie-rack, thanks to a series of off-beat adverts that seek to convey Sega's new, friendly image. While the company's profile hasn't suffered in quite the same way as in the west, a public showing of humility (which is essentially what these commercials are about) will bring Sega closer to its market. Other adverts have been more Dreamcast specific, but **Edge** favours the one below, in which Hidekazu-san suffers a particularly nasty nightmare. It makes Sega's target clear crystal clear ('PlaySta' is Japanese slang for PlayStation, in case you didn't twig it), and confirms that this Christmas is going to witness an especially competitive market in Japan.



1. Hidekazu-san meets a group of seemingly innocent children



2. "Sega has changed," they cry in unison.



3. "Really?" replies Hidekazu. "Yes, it's really changed," comes the reply.



4. Suddenly the children's eyes are ringed with black, a sign of 'bad spirits' in Japan.



5. Oh no! The affable Hidekazu-san has been duped.



6. "It's a joke!" the kids laugh in chorus. "We don't need Sega, we want PlaySta!"



7. Luckily for the manager, the ground opens up at this point and swallows him.



8. He falls...



9. ...all the way into his office...



10. ...where he's been caught napping by his secretary, who exclaims, "Are you okay?"



11. "Yes," he ponders, "I broke my nail."



12. And Hidekazu lives to fight again – cue logo and lots of trendy media kudos...

Monster beats Snake

Japan: It seems *Metal Gear Solid* has not made quite the cataclysmic impact in Japan as some predicted. Indeed, in a recent issue of *Famitsu* it was revealed that the Konami epic is currently being outsold 2:1 by none other than Nintendo's latest Pocket Monsters venture, featuring Pikachu (right). Which just goes to show that, even in this era of superb 3D visuals and spectacular virtual environments, all gamers really want is a powerful little monster in their trouser pocket.





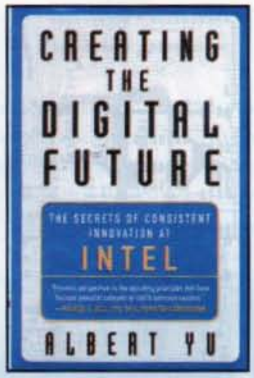
Solid Snake has met his match, it seems

CREATING THE DIGITAL FUTURE

Between CEO Andy Groves' 'Only The Paranoid Survive' and Tim Jackson's 'Inside Intel' comes Albert Yu's slim contribution to the Intel story. 'Creating The Digital Future' is a very different book, however. Whereas Grove and Jackson stoke up excitement with boardroom bust-ups and plans to wipe out the competition, Yu's goal is quieter and more radical: to explain the management structure that propelled Intel to become the world's biggest chip manufacturer.

It's a subject Yu is well qualified to cover having been with Intel, on and off, since 1972. Now a senior vice president, he recalls the dark days of the early '80s, battles against RISC chips and the Pentium floating-point divide crisis.

As he points out, it was Intel co-founder Gordon Moore who stated that the amount of transistors on a chip doubles every 18 to 24 months: the legendary Moores Law, and the fundamental reason for Intel's rise. Yet chip manufacturers such as Motorola have faltered within this environment. The new economy is pragmatic, where high volume runs are king. This can only happen when chips meet their technical specification and are produced on time. It may make for a boring world, but with Yu predicting a billion transistors per chip by the year 2011, it seems foolish to argue.



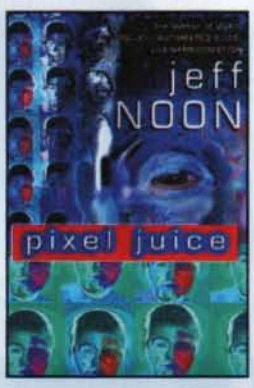
Author: Albert Yu
Publisher: Free Press
ISBN: 0 684 83988 1

PIXEL JUICE

Jeff Noon is an author who has it all. He satisfies the appetite of the underground with the cyber-club style of best-sellers like 'Vurt', as well as winning serious writing awards and the praise of critics. He even sets his books in his hometown of Manchester. Small wonder that four novels into his career he is Britain's coolest sci-fi writer. 'Pixel Juice', his first collection of short stories, only strengthens that reputation.

He is at his best sketching the details of a wider and menacing technological environment that is only hinted at. In particular 'Somewhere the Shadow,' with its terrifying take on mind-body separation, has more atmosphere in a couple of pages than in the whole of some of this year's cyberprint.

Elsewhere, Noon continues working over his favourite subjects; clubs, drugs, pimps and DJing. He subsumes remix culture too, chancing his hand with the occasional dub version of a story that has gone before. And considering the range of the collection, fifty chapters in all, it is surprising how skillfully he ties everything together within the same distopia. Noon's gift is to maintain our belief that we stand on the brink of a brave new world. It is an imagination worth getting involved with.



Author: Jeff Noon
Publisher: Doubleday
ISBN: 0385 408595



INTERNET

Site: Gamers EXtreme
URL: http://www.gamers.com

There are a seemingly infinite number of PC-related sites on the Web, but few boast the intricate nature of Gamers EXtreme. Although dealing superficially with most things PC, the site focuses particularly on firstperson shoot 'em ups and strategy titles. Naturally, *Quake* and its sequel feature prominently, but much virtual space is also devoted to *Starcraft* and its brain-taxing pals.

In addition to the news and strategy guides, the site offers input from regular columnists. One such individual is none other than 21-year-old US *Quake* champion Thresh. In London to attend WirePlay UK's Quakeadelica competition at the time of writing, the young *Quake* master would normally busy himself by destroying some poor soul at his favourite game before publishing an excruciating detailed account of said confrontation on this highly specialised site.

TOMMY GEE

Vortex Phenomenon
(R&S)

More familiar under his Tournesol guise, Gee is at the forefront of R&S's current roster, blending the techno know-how the label is famed for with a commercial edge that's hard to resist. The vocal cut-ups recall Fatboy Slim's recent efforts, while the hip hop, and big beat blending brings to mind Bomb the Bass at their best. But Gee isn't content to swim in such familiar waters when there's also the possibilities of drum'n'bass, acid, jazz and even free-flying funk to explore, and he makes every sound his own.



TRACK

Further Funk
(Hydrogen Dukebox)

One year old now, the quirky club night has spawned another electro funk monster, reassuringly packing in all the regulars of the scene. The set kicks off with Omnivore vs Gadget Girl's 'RetroTechnoAcid Electro', a track title that tells you just about all you need to know about the nature of Track nights. Kraftwerk by way of Funkadelic, the offerings from A1 People, Girl Eats Boy, et al may be ridiculously old-school in the use of electronica, but come loaded with beats tailored to the tastes of the current clubbing crowd.



TWO LONE SWORDSMEN

Stay Down
(Warp Records)

The days of 'Haunted Dancehall' are long gone for the Swordsmen, a Tenniswood and Weatherall collaboration. The pair are now far keener to play around with the sort of ghostly samples and squelches more familiar to Warp fans. But while the otherworldly 'Ink Cloud' is a world away from the pop production Andrew Weatherall is more famous for, that love of dub is evident on several infectious tracks; the likes of 'The Big Clapper' suggesting a space age Lee Perry. It's just a shame not all of the 12 cuts make use of the style.



FUTURE LOOP FOUNDATION

Conditions For Living
(Planet Dog/Ultimate)

Once a home for spliffed-out vibes, Planet Dog is now a centre for drum'n'bass. This second effort from producer Mark Barrott (with help from, among others, Michael Dog himself) demonstrating how dynamic things can get. The title track, with its dubby vocal loops and rock steady stream of high-octane beats, even has chart potential. Yet that style could never sustain a whole album, so it's just as well the sound also proffers acoustic guitar, desolate ambience, and the wonderfully brooding 'Moog Road'. A complex and rewarding album.



VIEWPOINT

EXPRESS YOURSELF IN **EDGE** – WRITE TO: LETTERS, **EDGE**, 30 MONMOUTH STREET, BATH, BA1 2BW (email: edge@futurenet.co.uk)

After reading Richard Miller's comments about Project X in **E**64 it reminded me of something that happened at Mucky Foot some time ago when we received a Project X development kit.

After seeing Project X's realtime raytracing demo there was heated debate at Mucky Foot. The question was, 'Could the PC do realtime raytracing?' The argument dragged on until at the end of the day I bet Mike [Diskett] that, by midnight that night, I could code up a realtime raytracer on my P300 that looked as good as the Project X demo. After hours of manic typing I managed to win the bet and collected my prize of a book!

(Incidentally, this letter doesn't mean Mucky Foot is going to support Project X and it doesn't mean we're *not* going to support Project X either!)

Mark Zarb-Adami,
via email

This mail was supported by a version of Mark's realtime raytracer demo, and it's mighty impressive. Hmmm. What else should **Edge** know about Project X's purported capabilities? Letters, please.

When will these innovative hardware manufacturers, such as VM Labs with its Project X format, come to realise that letting Jeff Minter program their first masterpiece is an extremely bad move, if not in fact ultimately fatal?

I don't know why, but that man seems to be jinxed. Just cast yourself back to his involvement with Atari on the Jaguar (*Tempest 2000*), and also Atari's attempt at releasing PC CD-ROMs (*Tempest* again), and way back in times gone by, with the do-it-all Konix Multi System, the console that allowed you to transform your console/controller into five amazing shapes: a steering wheel, a handlebar and also a fighter pilot's joystick, to name only three that I can be bothered to remember.

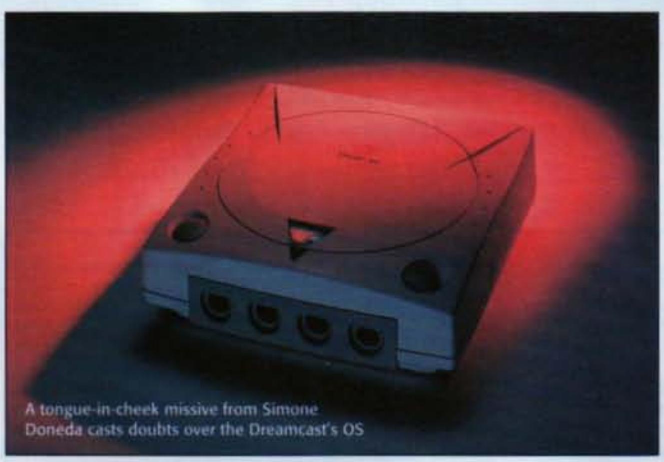
DC,
via email

Don't be too hard on Jeff. He's got a goat, a sheep and a dog to support.

'Everyone is crying out for Dreamcast, but I was wondering if we haven't forgotten that it's ***Windows* based.** I've realised that I won't be happy with my Dreamcast **breaking down** at least once per session'

I used to find the games industry interesting. Now I find it greedy, cynical and self serving. There are several instances of this in **E**64, the most blatant being the 'Darling, I Love You' story on p129. This man has £100m and what does he spend it on? A Ferrari. That must have taken an incredible amount of imagination and taste. In the same issue at least one other developer dreams of owning a sports car.

This is sad, and is what defines them as geeks, and yet greed seems to be what drives the industry, not integrity, ingenuity and passion for games. I could be wrong, and accumulation of wealth and stagnation of imagination is mankind's ultimate goal and the reason why we exist. Also, as an artist, musician and gamer I demand choice and variety in what I see, hear and play. I dictate to you game developers, the opposite of what you have dictated to me the last four years:



A tongue-in-cheek missive from Simone Doneda casts doubts over the Dreamcast's OS

- No more 'Blade Runner'-inspired visions of the future.
- No more H R Giger visual rip-offs.
- No more dance soundtracks as a given fact in games.
- No Tarzan types/Lara Crofts/cyberdemons with skull faces.
- No more reliance on 3D to communicate games ideas.

This has all been said before, many times, and will be repeated ad nauseum until a) you vomit yourself out of existence, or b) you do something about it.

The above is all for nought, I suppose, because sales are up, aren't they?

Jill A Piper,
via email

Given that the whole world is crying out for the new 128bit Dreamcast, I was wondering if we haven't forgotten that it's *Windows* based. In the first place this sounded cool (there would be a lot of PC conversions worth playing, it would be an easy system to work on, especially when compared to the Saturn), but then I realised I wouldn't be happy with my Dreamcast crashing at least once per session. Can you imagine, after two hours fighting to kill a bad guy, the TV screen turns blue and the following message appears: 'An irreversible error has occurred, All data will be lost'?

Not to mention trying to install any add-on, or even load a previous saved game, when the closest file to the one we'll be looking for will be for some other stored game.

Jeez...

Simone Doneda,
via email

Edge readers: such a cynical breed.

I was very interested in your comments on cameras in 3D platform games (**E**63, What Has Super Mario 64 Ever Done For Videogames?), and I thought I would share some of my own.

The camera is one of the most important things to get right in a 3D game. Every element of the gameplay is affected by the camera, from the instant the game is first

switched on. For this reason it is immediately obvious when a game gets it wrong. In the case of *Banjo-Kazooie* it was the camera that first hinted that the game might not be as good as *Mario*. There were times when one was forced to use the camera buttons more than any other controls, but without this ability the game would have been impossible to play.

It is not just 3D platform games that stand to benefit from improved cameras. As an example, the engineer responsible for the cameras in *Colin McRae Rally* spent many, many hours developing and testing variants. There are many subtle effects being used to give a greater sense of drama and/or realism – witness the camera's slight bounce as the car goes over a jump. I have no doubt that it would be a lesser game had this effort not been expended.

There is an endless supply of examples of the importance of a good camera. If all developers put the amount of effort into it that Miyamoto-san and the team at Codemasters seem to have then games can only benefit. Having recently seen *Spyro* and *Sonic Adventure* I can say that there are still mistakes being made. Will the future be one of endless exploration, or of periodical motion sickness?

Chris Preston, via email

It seems to me that a good proportion of developers appear to be neglecting one particular aspect of interactive entertainment which has the potential in many cases to greatly enhance the gameplaying experience: plot. Not only should the plot be original and interesting, but also engaging. To achieve the latter, it is necessary to continually return to the plot elements throughout the game.

All too many games appear to simply set the scene, leave the player to get on with it, and then return to a continuation of the introduction at the end. *Mario 64*, for all its supposed greatness, is certainly guilty of this, as well as having a weak 'damsel in distress' storyline to start with. Mario arrives at the Princess's castle, finds that Bowser has kidnapped her, and subsequently goes around collecting stars in order to gain access to upper chambers of the castle to rescue her. That's it. Finished.

However, at least *Mario* has an ingame introduction (of sorts). Confining the introduction to the instruction booklet is something *Quake*-style games appear to be particularly guilty of. Of course, it could be argued that the point of these games is fast and frenetic blasting, in which the addition of a plot element would be superfluous, but if done properly (ie, made relevant to the action by accounting for changes in scenery and enemies at the very least, for example), the game would be greatly enhanced. *GoldenEye* is a good example of this, although it does not take it quite far enough.

The *Shadowman* article in **E**63 certainly aroused my interest. For me, the prospect of squaring up against Jack the Ripper (for reasons outlined in the plot) is almost reason alone to buy it.

I'm not attacking every action game for not being an RPG, but I believe that all games (save the sports genre) have room for a decent plot to be integrated into the action. It can only serve to add to the gameplaying experience.

Julian Scott Warren, Cardiff

Well, some games suit extensive plots and backstories, some don't. Plus, it's often a case of personal taste (**Edge** is certainly unaware of many *Mario 64* players unhappy with its lack of plot).

Regardless, in the right context, plot content *is* moving forward as developers make strides with non-action content (and that doesn't just mean longer FMV sequences, happily). Expect a feature soon.

'The PlayStation is a poorly designed piece of equipment; the first two models **rarely lasted** 12 months of normal use due to overheating and a recurring problem with the **CD drive** not spinning discs'

In response to Chris Van Graas's email in Viewpoint, **E**64, regarding the reliability of the PlayStation, I felt compelled to write in concerning the issue.

As a manager for one of the country's largest specialist games retailers for over two years I have more experience of faulty PlayStations than most.

The company I worked for has long had a policy which dictates that managers cannot talk to the press about any issues concerning the business, but now I have left I feel I am able to talk freely.

Quite simply, the PlayStation should never have been released for sale. It is quite obviously a poorly designed piece of equipment; the first two models rarely lasted 12 months of normal use due to overheating and a recurring problem with the CD drive not spinning discs – hence games not loading or regular crashes during gameplay.

In two years at my store alone over 100 PlayStations were returned with genuine faults. Yes, it could be argued that any machine which sells so well is bound to have a higher percentage of returns, but even so I found the situation quite unreal.

As a comparison, the Saturn, itself obviously CD based, had next to no returns, and I can honestly say that I have never heard of any regular faults with that hardware.

The N64 is even more reliable – in fact it's almost bullet-proof.

The fact that a company as large as Sony, renowned for the quality of its electrical goods, has produced such a lemon in terms of reliability is astounding. That the PlayStation has sold so well amazes me, too.

But, worst of all, the press has been so quiet on this issue, when it was a well-known fact within the industry. Maybe it was for fear of spoiling a good thing? I put it to you: if a less successful console suffered so many problems, it would have been shouted from the rooftops of every gaming publication. Shame on all of you mags out there for selling out – the public deserves better!

Mike O' Shaughnessy, Tamworth, Staffs

Edge can't report on something that hasn't been brought to its attention. Anyway: Sony, it's over to you…



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